



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Ohio Government Center  
100 W. Town St., Suite 700  
Columbus, Ohio 43215

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www.epa.state.oh.us

OHIO E.P.A. MAILING ADDRESS:

JUN 20 2007 P.O. Box 1049  
Columbus, OH 43216-1049

ENTERED DIRECTOR'S JOURNAL

JUN 20 2007

CERTIFIED MAIL

I certify this to be a true and accurate copy of the  
official documents as filed in the records of the Ohio  
Environmental Protection Agency.

By: [Signature] Date: 6-20-07

Mr. Keith Nagel  
Manager, Environmental Affairs  
Mittal Steel, USA  
3060 Eggers Avenue  
Cleveland, Ohio 44105

RE: AMENDED CLOSURE PLAN APPROVAL (CLEAN CLOSURE RISK  
ASSESSMENT)  
MITTAL STEEL USA  
FORMER ELECTRIC SHOP DEGREASER SLUDGE UNIT  
**OHD004218673**

Dear Mr. Nagel:

On February 2, 2007, Mittal Steel submitted to Ohio EPA an amended closure plan for the former electric shop degreaser sludge unit located at 3060 Eggers Avenue, Cleveland, Ohio. The amended closure plan was submitted pursuant to rule(s) 3745-66-11 and 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that Mittal Steel's proposal for amended closure complies with the requirements of OAC rules 3745-66-11 and 3745-66-12.

The owner or operator and the public were given the opportunity to submit written comments regarding the amended closure plan in accordance with the hazardous waste rule requirements. No public comments were received by Ohio EPA.

Based upon review of Mittal Steel's submittal and subsequent revisions, I conclude that the amended closure plan for the hazardous waste facility at 3060 Eggers Avenue, Cleveland, Ohio meets the performance standard contained in OAC rule 3745-66-11 and complies with the pertinent parts of OAC rule 3745-66-12.

The amended closure plan submitted to Ohio EPA on February 2, 2007 by Mittal Steel is hereby approved.

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director



Compliance with the approved closure plan, especially including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this amended closure plan does not release Mittal Steel from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC rule 3745-50-42(D). These certifications should be submitted to:

Ohio Environmental Protection Agency  
Division of Hazardous Waste Management  
Attention: Dave Sholtis  
Regulatory and Information Services Section  
P.O. Box 1049  
Columbus, Ohio 43216-1049





Mr. Keith Nagel  
Mittal Steel, USA  
Page 3

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Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and, as a result, eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Todd Surrena at (330) 963-1255.

Sincerely,



Chris Korleski  
Director, Ohio EPA

cc: Dave Sholtis, Assistant Chief, DHWM, CO  
Ed Lim, Manager, ERAS, DHWM, CO  
Dale Meyer, EPA, Region 5  
Todd Surrena, DHWM, NEDO  
John Palmer, DHWM, NEDO  
Harry Courtright, DHWM, NEDO  
Rich Zavoda, Manager Environmental, Mittal Steel, USA





State of Ohio Environmental Protection Agency

Northeast District Office

0 E. Aurora Road  
Twinsburg, Ohio 44087-1969

TELE: (330) 963-1200 FAX: (330) 487-0769  
www.epa.state.oh.us

Bob Taft, Governor  
Jennette Bradley, Lieutenant Governor  
Christopher Jones, Director

February 1, 2005

**Certified Mail**

Rich Zavoda  
Manager, Environmental  
ISG Cleveland, Inc.  
3060 Eggers Avenue  
Cleveland, Ohio 44105

**RECEIVED**  
FEB 07 2005  
AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

**RE: INTERNATIONAL STEEL GROUP, CLEVELAND, INC., (EAST PROPERTIES)  
ELECTRIC SHOP DEGREASER SLUDGE UNIT  
VAPOR INTRUSION RISK ASSESSMENT/POST CLOSURE PLAN  
OHD 004218673**

Dear Mr. Zavoda:

On August 24, 2004, Ohio EPA received from International Steel Group (ISG) a risk assessment for the vapor intrusion pathway for the Electric Shop Degreaser Sludge Unit located at 3060 Eggers Avenue, Cleveland, Ohio. The risk assessment was generated from additional sampling and evaluation as defined in the approved closure plan.

Based on the review of the risk assessment, the vapor intrusion pathway is acceptable to Ohio EPA standards for the industrial use of the property. However, the risk assessment showed that the property would not meet an unrestricted future use scenario.

Ohio EPA is requesting that ISG proceed with the closure process and submit a revised post closure plan for the Electric Shop Degreaser Sludge Unit. The post closure plan will define ISG continued ground water monitoring, site security, upkeep and maintenance of engineering controls, and ensure worker exposure durations are limited as outlined in the approved modified amended closure plan and risk assessment. Additionally, ISG should submit a closure certification stating that all requirements of the closure plan have been completed. Furthermore, a notice to the deed shall be completed stating that the property is in post closure care and maintenance.

The requirements for post closure ground water monitoring are found in Ohio Administrative Code (OAC) 3745-54 and 55. These requirements begin after completion of the closure of the unit and continue for at least thirty years after the date of completing closure.

The revised post closure plan shall be prepared in accordance with the following editorial protocol or convention:

Rich Zavoda  
ISG Cleveland, Inc.  
February 1, 2005  
Page 2

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The revised post closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Todd Surrena, Ohio EPA, North East District Office, 2110 East Aurora Road, Twinsburg, Ohio, 44087.

Ohio EPA will, pursuant to OAC rules 3745-66-12, review the resubmitted plan and issue a final action approving or modifying the plan. Ohio EPA's final action on the re-submitted plan is appealable to the Environmental Review Appeals Commission.

If you wish to arrange a meeting to discuss your responses to this letter, please contact Todd Surrena, at (330) 963-1255.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units, and as a result, eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Todd Surrena at (330) 963-1255.

Sincerely,



Todd Surrena  
District Representative  
Division of Hazardous Waste Management

TS:cl

cc: Jeremy Carroll, DHWM, CO File, Ohio EPA  
Harriet Croke, U.S. EPA, Region V

ec: Harry Courtright, DHWM, NEDO, Ohio EPA  
John Palmer, DHWM, NEDO, Ohio EPA





State of Ohio Environmental Protection Agency  
Northeast District Office

2110 E. Aurora Road  
Twinsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor  
Christopher Jones, Director

June 9, 2004

CERTIFIED MAIL

Rich Zavoda  
Manager, Environmental  
ISG Cleveland, Inc.  
3060 Eggers Avenue  
Cleveland, Ohio 44105

**RECEIVED**  
JUN 17 2004  
Technical Support and Permits Section  
Waste Management Branch  
Waste, Pesticides and Toxics Division  
U.S. EPA - Region 5

**Re: International Steel Group, Cleveland Inc., (East Properties)  
Electric Shop Degreaser Sludge Unit  
Post Closure Plan  
OHD004218673**

Dear Mr. Zavoda:

On May 12, 2004, Ohio EPA and International Steel Group (ISG) conducted a conference call to discuss the post closure plan for the Electric Shop Degreaser Sludge Unit, Cleveland, Inc., located at 3060 Eggers Avenue, Cleveland, Ohio. Participating in the call were Larry Thompson, Stan Rihtar and yourself representing ISG, Ed Lim, Eric Hagen, and Stephanie Beak representing Ohio EPA Central Office, and John Palmer and myself representing Ohio EPA Northeast District Office. The main topics of discussion were the vapor intrusion pathway, indoor air sampling, and post closure requirements. As agreed upon during the conference call, Ohio EPA is sending this response to aid ISG in preparing an amended post closure plan. Included in this letter are requirements ISG shall include in the post closure plan and a summary of options ISG may consider for completing post closure.

Enclosed as Attachment A to this correspondence are comments regarding post closure. The facility should use the comments as a guide in preparing a revised post closure plan. Ohio Administrative Code (OAC) rule 3745-66-12 requires that such a revised post closure plan be submitted to the director of Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The revised post closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.



INTERNATIONAL STEEL GROUP  
POST CLOSURE PLAN  
PAGE 2

4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The revised post closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Todd Surrena, Ohio EPA, North East District Office, 2110 East Aurora Road, Twinsburg, Ohio, 44087.

Ohio EPA will, pursuant to OAC rules 3745-66-12, review the re-submitted plan and issue a final action approving or modifying the plan. Ohio EPA's final action on the re-submitted plan is appealable to the Environmental Review Appeals Commission.

If you wish to arrange a meeting to discuss your responses to this letter, please contact Todd Surrena, at 330-963-1255.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Todd Surrena at 330-963-1255.

Sincerely,



Todd Surrena  
District Representative  
Division of Hazardous Waste Management

TS:bo

pc: Pamela Allen, DHWM, CO File, Ohio EPA  
Harriet Croke, U.S. EPA, Region V  
Ed Lim, DHWM, CO, Ohio EPA

ec: Todd Surrena, DHWM, NEDO, Ohio EPA  
John Palmer, DHWM, NEDO, Ohio EPA  
Harry Courtright, DHWM, NEDO, Ohio EPA  
Eric Hagen, DHWM, CO, Ohio EPA

## **ATTACHMENT A**

### **BACKGROUND**

International Steel Group (ISG) prepared a post closure plan to meet the requirements outlined in the modified amended closure plan. The modified amended closure plan was approved by Ohio EPA July 3, 2003. As part of the post closure requirements, ISG shall continue ground water monitoring, upkeep site security and maintenance of engineering controls, and limit worker exposure durations as outlined in the approved modified amended closure plan. The following comments are prepared to aid ISG in the preparation of the amended post closure plan.

### **COMMENTS**

1. One option ISG may choose is that ISG would clearly state the results of the Johnson and Ettinger (J&E) Model for indoor vapor intrusion. The J&E model conclusion would show a complete pathway to receptors in the building via vapor intrusion based on the soil gas sampling results. ISG would install a remediation system to vent the vapors out of the building or apply a suitable vapor barrier. Upon completing the installation of the remediation system, ISG would then enter into the post closure period for ground water contamination and maintenance of the engineering control. If the remediation system was installed, ISG could show that the risk from vapor intrusion was being addressed by the engineering control and the building could be used for industrial purposes only.

The post closure plan in this scenario would address the continued ground water monitoring, restrictions on ground water use, and restrictions on land use. The plan would contain detailed description for ground water monitoring. The owner would have to obtain an approved amended post closure plan before any activities which would disturb the soil could be completed. Further explanation and details of the post closure ground water requirements are given below.

2. Another option ISG may choose would be to clearly state the results of the J&E model showing that there is a complete pathway based on the soil gas sampling results. In addition, ISG would include a discussion on the fact the building is currently not being actively used. The pathway from the vapor intrusion to a human receptor working inside the building would be acceptable based on limited exposure time. The exposure time would be determined by conducting back calculations using the J&E model. This exposure time would be included in the post closure plan as a condition of post closure and would include a plan to monitor worker exposure. Furthermore, ISG is encouraged under this scenario to continue to collect soil gas samples from under the building during the post closure period. The collection of such samples would build the data base to study the vapor intrusion pathway. These samples would be very useful if in the future the owner would want to amend the post closure plan to change the use of the building from non active to industrial.

The post closure plan in this scenario would address the continued ground water monitoring, restrictions on building use, monitoring plan to show the building remains inactive, restriction on ground water use, restrictions on land use and a soil gas sampling monitoring plan. The owner would have to obtain an approved amended post closure plan before any change in building use could be completed and/or before any activities which would disturb the soil could be completed.

The following comments are to be used only as a guide when preparing a post closure plan and do not include all details for which a post closure plan will be reviewed. It is the responsibility of the facility to review the rules and requirements of post closure as outlined in OAC 3745-54 and 55 when preparing their post closure plan. All the post closure laws and regulations may be viewed at [www.epa.state.oh.us/dhwm/laws\\_regs.html](http://www.epa.state.oh.us/dhwm/laws_regs.html).

## **GROUND WATER REQUIREMENT IN POST CLOSURE**

Since ground water has been impacted at the unit and does not meet risk assessment goals, ISG shall enter into post closure ground water monitoring. The requirements for post closure ground water monitoring requirement are found in Ohio Administrative Code (OAC) 3745-54 and 55. These requirements begin after completion of the closure of the unit and continue for at least thirty years after the date of completing closure. At a minimum, some of the details in the post closure plan shall include:

- A). List of the hazardous constituents identified in the ground water.
- B). Survey map showing outline of hazardous waste unit and compliance point boundaries.
- C). Post closure maintenance plan.
- D). General ground water monitoring requirements including a sampling and analysis plan.
- E). Explanation of how the owner or operator will determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the post closure plan.
- F). Explanation of how any concentration limits being exceeded at the point of compliance will be addressed.
- G). Details of how and when the notice to local land authority will be recorded.
- H). Cost estimate for post closure care and financial assurance for post closure.
- I). Detailed section stating that any modification to the post closure plan must be submitted to the director of Ohio EPA and approved by the Ohio EPA before any changes to the site can occur. This would include any activity that would expose a worker to soil or ground water, the exception being ground water sampling activities as outlined in the post closure ground water monitoring plan.

## **POST CLOSURE CARE AND USE OF PROPERTY AND BUILDING**

Post closure care for the hazardous waste management unit is subject to the requirements of rules OAC 3745-54 and 55. The written post closure plan must include detailed sections outlining the post closure care as detailed in these rules.



These requirements begin after completion of the closure of the unit and continue for at least thirty years after the date of completing closure. At a minimum, some of the details in the post closure plan shall include:

- A). Monitoring plan to insure inactive building use and land restrictions.
- B). Maintenance plan for the building and/or engineering controls and soil gas vapor monitoring.
- C). Survey map showing outline of hazardous waste unit and compliance point boundaries, including the on site building.
- D). Details of how and when the notice to local land authority will be recorded.
- E). Cost estimate for post closure care and financial assurance for post closure.
- F). Detailed section stating that any modification to the post closure plan must be submitted to the director of Ohio EPA and approved by the Ohio EPA before any changes to the site or building can occur. This would included any activity that would expose a worker to soil or ground water, the exception being ground water sampling activities as outlined it the post closure ground water motioning plan.
- G). If desired, a post closure soil gas vapor monitoring plan to continue to build the data base of soil gas vapor. This data would be needed if a future modification would be submitted requesting a change in the property use.
- H). All ground water monitoring activities as outlined above.





State of Ohio Environmental Protection Agency  
Northeast District Office

2110 E. Aurora Road  
Twinsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor  
Christopher Jones, Director

April 19, 2004

**Certified Mail**

Rich Zavoda  
Manager, Environmental  
ISG Cleveland, Inc.  
3060 Eggers Avenue  
Cleveland, Ohio 44105

**Re: NOTICE OF DEFICIENCY  
INTERNATIONAL STEEL GROUP, CLEVELAND, INC., (EAST PROPERTIES)  
ELECTRIC SHOP DEGREASER SLUDGE UNIT  
POST CLOSURE PLAN  
OHD 004218673**

Dear Mr. Zavoda:

On October 7, 2003, Ohio EPA received from International Steel Group (ISG) a post closure plan for the Electric Shop Degreaser Sludge Unit, Cleveland, Inc., located at 3060 Eggers Avenue, Cleveland, Ohio.

Ohio EPA, Division of Hazardous Waste Management (DHWM), has conducted a review of the above referenced post closure plan. We have enclosed, as Attachment A with this correspondence, detailed deficiency comments on the post closure plan. Please provide a revised post closure plan addressing all areas indicated in the deficiency comments. Ohio Administrative Code (OAC) rule 3745-66-12 requires that such a revised post closure plan be submitted to the director of Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The revised post closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

RECEIVED

APR 23 2004

Rich Zavoda  
ISG Cleveland, Inc.  
April 19, 2004  
Page 2

Technical Support and Permits Section  
Waste Management Branch  
Waste, Pesticides and Toxics Division  
U.S. EPA - Region 5

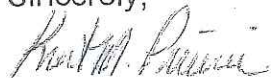
The revised post closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Todd Surrena, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio, 44087.

Ohio EPA will, pursuant to OAC rules 3745-66-12, review the re-submitted plan and issue a final action approving or modifying the plan. Ohio EPA's final action on the re-submitted plan is appealable to the Environmental Review Appeals Commission.

If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Todd Surrena, at (330) 963-1255.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result, eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Todd Surrena at (330) 963-1255.

Sincerely,



Kurt Princic  
Environmental Manager  
Division of Hazardous Waste Management

KP/TS/cl

cc: Pamela Allen, DHWM, Central File, Ohio EPA  
Harriet Croke, U.S. EPA, Region V  
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA

ec: Todd Surrena, DHWM, Ohio EPA, NEDO  
John Palmer, DHWM, Ohio EPA, NEDO  
Harry Courtright, DHWM, Ohio EPA, NEDO

## **ATTACHMENT A**

### **BACKGROUND**

International Steel Group (ISG) prepared a post closure plan to meet the requirements outlined in the modified amended closure plan. The modified amended closure plan was approved by Ohio EPA July 3, 2003. As part of the post closure requirements, ISG shall continue ground water monitoring, upkeep site security and maintenance of engineering controls, and limit worker exposure durations as outlined in the approved modified amended closure plan. The following comments are noted as deficiencies in the post closure plan:

### **COMMENTS**

1. The approved closure plan states that the selected method of indoor air control to be used and a proposed implementation schedule would be submitted to the Ohio EPA. Ohio EPA has not received documentation on how the indoor air exposure will be controlled. The chosen indoor air control method should be proposed to the Ohio EPA with supporting documentation explaining how the method will allow the indoor air to meet the risk assessment goal along with indoor air survey results. This should be submitted for approval. Additionally, the post closure plan should specify what action will be taken if it is determined that during the post closure period the control has become ineffective.
2. The post closure plan should specify what actions will be taken if it is determined that ground water concentration limits are being exceeded. These actions should include, but not be limited to, notifying the director within seven (7) days and submitting a detailed description of corrective actions that will be implemented to achieve compliance with the ground water protection standards.
3. OAC rule 3745-54-99(G) requires the facility to analyze samples from all monitoring wells at the compliance point(s) for all constituents contained in the ground water monitoring list at least annually to determine whether additional hazardous waste constituents are present and at what concentrations. These constituents can be found in Appendix IX to OAC rule 3745-54-98. The post closure plan should be modified to address this rule.
4. The post closure plan should specify what actions will be taken if additional constituents are identified during the annual Appendix IX sampling event. The facility may wish to resample the suspected monitoring well and surrounding wells in the event that a new constituent is identified.
5. The post closure plan should discuss record keeping and include a schedule for maintenance and inspections of ground water monitoring equipment as referenced in OAC rule 3745-54-15(B)(1) and 3745-54-73(B)(5 & 6).

6. The post closure plan should discuss availability, retention, and disposition of records as referenced in OAC rule 3745-54-74(A & B).
7. The closure plan should include a schedule for reporting information to the Ohio EPA including:
  - a. submittal of the Supplementary Annual Groundwater Monitoring Report Form as required by OAC rule 3745-54-75, and
  - b. submittal of ground water monitoring data reports as the information becomes available.
8. The post closure plan should be revised to state that if groundwater is found to have been impacted, an amended closure plan will be submitted to Ohio EPA for review and approval to address groundwater corrective actions in accordance with OAC rules 3745-54-90 through 3745-55-011.





State of Ohio Environmental Protection Agency

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2 S. Front Street  
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MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

**Certified Mail**

**JUL 03 2003**

Rich Zavoda, Manager  
ISG Cleveland, Inc.  
3060 Eggers Avenue  
Cleveland, Ohio 44105

**Re: Amended Closure Plan Approval, ISG Cleveland, Inc.  
OHD004218673**

Dear Mr. Zavoda:

On April 19, 2003, ISG Cleveland, Inc. submitted to Ohio EPA an amended closure plan for the degreaser sludge container unit located at 3060 Eggers Road, Cleveland, Ohio. The amended closure plan was submitted pursuant to section 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that ISG Cleveland, Inc. proposal for amended closure complies with the requirements of OAC rules 3745-66-11 and 3745-66-12.

The owner or operator and the public were given the opportunity to submit written comments regarding the amended closure plan in accordance with the hazardous waste rule requirements. No public comments were received by Ohio EPA.

Based upon review of ISG Cleveland, Inc.'s submittal and subsequent revisions, I conclude that the amended closure plan for the hazardous waste facility at 3060 Eggers Avenue, Cleveland, Ohio, as modified herein, meets the performance standard contained in OAC rule 3745-66-11 and complies with the pertinent parts of OAC rule 3745-66-12.

- 1) ISG Cleveland, Inc. (ISG) is proposing to close the degreaser sludge container unit to site specific industrial clean standards for soil and ground water. The clean standards were calculated by performing an industrial risk assessment for the constituents of concern. Since the calculated ground water cleanup standards do not meet an unrestricted future use scenario, ISG shall enter into post closure fo the unit upon completion of closure activities.

Bob Taft, Governor  
Jennette Bradley, Lieutenant Governor  
Christopher Jones, Director

OHIO E.P.A.  
JUL -3 2003  
ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency  
7-3-03

- 2) ISG shall submit a post closure plan within 90 days of receiving this amended closure plan approval.
- 3) The post closure plan shall contain a ground water monitoring plan as required by OAC 3745-54 and 55. Additionally, the post closure plan shall contain an operation and maintenance plan for all engineered controls including indoor air controls.
- 4) ISG will resume quarterly ground water monitoring in the 2<sup>nd</sup> quarter of 2003 for a period of one year. After the initial year of quarterly sampling, ground water monitoring shall be conducted on a semi-annual basis until the unit enters into post closure. All ground water sampling shall be performed as described in the ground water sampling and analysis plan, Appendix D of the amended closure plan.

Compliance with the approved closure plan, especially including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this amended closure plan does not release ISG Cleveland, Inc. from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the Director's action. Notice of the filing of the appeal shall be filed with the Director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street  
Room 222  
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator



Rich Zavoda  
ISG Cleveland Inc.  
Page 3 of 3

shall include the statement found in OAC rule 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and, as a result, eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Todd Surrena at (330) 963-1255.

Sincerely,



Christopher Jones  
Director

CJ/TS/cl

cc: Pamela Allen, DHWM Central File, Ohio EPA  
Ed Lim, Manager, ERAS, CO, Ohio EPA  
Harriet Croke, U.S. EPA - Region 5  
Todd Surrena, DHWM, NEDO, Ohio EPA  
John Palmer, DHWM, NEDO, Ohio EPA





State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center  
122 South Front St.  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

OHIO E.P.A.

MAILING ADDRESS:

Lazarus Government Center  
P. O. Box 1049  
Columbus, OH 43216-1049

MAY - 8 2000  
ENTERED DIRECTOR'S JOURNAL

**Certified Mail**

MAY 08 2000

Keith A. Nagel  
Manager, Waste Management  
Corporate Environmental Control  
LTV Steel Company  
3100 East 45<sup>th</sup> Street  
Cleveland, Ohio 44127

**Re: Closure Plan Approval, LTV Steel Company, Cleveland Works - West  
Electric Arc Furnace Dust Area  
OHD 004 218 673**

Dear Mr. Nagel:

On November 18, 1996, LTV Steel Company submitted to Ohio EPA a closure plan for the Electric Arc Furnace (EAF) Dust Area located at Cleveland Works West, 3100 East 45<sup>th</sup> Street, Cleveland, Ohio. Revisions to the closure plan were received on December 7, 1998. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that LTV Steel Company proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

Based upon review of LTV Steel Company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at 3100 East 45<sup>th</sup> Street, Cleveland Ohio, as modified herein, meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule(s) 3745-66-12.

The closure plan submitted to Ohio EPA on November 18, 1996, and revised on December 4, 1998, by LTV Steel Company, is hereby approved with the following modification(s):

1. LTV Steel Company shall provide copies of the manifests that accompanied the Electric Arc Furnace dust when removed from the area and transported off-site in 1983.

I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency

By: Omara Jackson Date 05/08/00

Bob Taft, Governor  
Maureen O'Connor, Lieutenant Governor  
Christopher Jones, Director

2. Analytical results of background slag samples that represent clean levels of lead in the slag soils display an outlier equal to 140mg/kg. LTV Steel Company shall provide a closure performance standard for lead in slag soils that does not include the 140mg/kg.
3. LTV Steel Company shall provide documentation showing the transformation of the background data for lead into normally distributed data.

All documentation requested as a modification to the approved closure plan shall be submitted within 30 days of receipt of this closure plan approval.

Compliance with the approved closure plan, including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. The director expressly reserves the right to take action, pursuant to Chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this closure plan does not release LTV Steel Company from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

You are notified that this action of the director is final and may be appealed to the Environmental Review Appeals Commission (ERAC) pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the ERAC within thirty (30) days after notice of the director's action. A copy of the appeal must be served to the director of Ohio EPA within three (3) days of filing with the ERAC. An appeal may be filed with the ERAC at the following address: Environmental Review Appeals Commission, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, OAC Rule 3745-66-15 requires the owner or operator of a facility to submit to the director of Ohio EPA certification by the owner or operator and an independent, qualified registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC Rule 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Thomas Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Greg Orr at (330) 963-1189.

Sincerely,



Christopher Jones  
Director

cc: Tom Crepeau, DHWM Central File, Ohio EPA  
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA  
Harriet Croke, USEPA, Region V  
Kimberly Moody, NEDO, DHWM, Ohio EPA  
John Palmer, NEDO, DHWM, Ohio EPA  
Natalie Oryshkewych, NEDO, DHWM, Ohio EPA

CJ/KM:ddb

2. LTV Steel Company shall provide documentation showing the transformation of the background data for lead into normally distributed data.

All documentation requested as a modification to the approved closure plan shall be submitted within 30 days of receipt of this closure plan approval.

Compliance with the approved closure plan, including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. The director expressly reserves the right to take action, pursuant to Chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this closure plan does not release LTV Steel Company from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

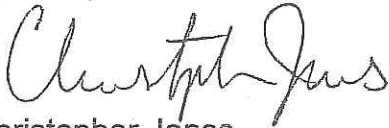
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When closure is completed, OAC Rule 3745-66-15 requires the owner or operator of a facility to submit to the director of Ohio EPA certification by the owner or operator and an independent, qualified registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC Rule 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Thomas Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

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Sincerely,



Christopher Jones  
Director

cc: Tom Crepeau, DHWM Central File, Ohio EPA  
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA  
Harriet Croke, USEPA, Region V  
Kimberly Moody, NEDO, DHWM, Ohio EPA  
John Palmer, NEDO, DHWM, Ohio EPA  
Natalie Oryshkewych, NEDO, DHWM, Ohio EPA

CJ/KM:ddb







State of Ohio Environmental Protection Agency

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RECEIVING ADDRESS:

100 WaterMark Drive  
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

DIVISION FRONT OFFICE  
Waste, Pesticides & Toxics Division  
U.S. EPA - REGION 5

**Certified Mail**  
**Return Receipt Requested**

Re: CLOSURE PLAN EXTENSION  
LTV STEEL CO. EAST  
OHD 004 218 673

October 30, 1997

Mr. Keith A. Nagel  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Nagel:

On August 6, 1997, LTV Steel Company, located at 3100 East 45th Street in Cleveland, Ohio, submitted a request for an extension to the closure period specified in the approved closure plan dated August 16, 1996 for 365 days, until August 15, 1998. The extension request was submitted pursuant to OAC Rule 3745-66-13(B) as closure will require longer than the 180 day period specified in OAC Rule 3745-66-13. LTV Steel Company has requested this extension because the remedial action set forth in the approved plan is no longer a viable remedial alternative.

An extension of time allowed for closure is not granted, because LTV does not intend to close in accordance with the approved plan, therefore, any additional activities are not included and a new modified amended closure plan must be submitted. The new modified amended closure plan will incorporate new closure activities along with a new schedule.

Please be advised that disapproval of this closure extension request does not release LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the

George V. Voinovich, Governor  
Nancy P. Hollister, Lt. Governor  
Donald R. Schregardus, Director



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owner or operator and an independent professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. These certifications shall follow the format specified in OAC 3745-50-42(D), and should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Data Management Section, P. O. Box 1049, Columbus, OH 43216-1049.

Sincerely,



Donald R. Schregardus  
Director

ltvexdis.904/EYL.ao

cc: Tom Crepeau, DHWM Central File, Ohio EPA  
Montee Suleiman, DHWM, CO, Ohio EPA  
Harriet Croke, U. S. EPA - Region V ✓  
Chris Prosser, DHWM, NEDO, Ohio EPA



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020  
(614) 644-2329

George V. Voinovich  
Governor

Donald R. Schregardus  
Director

**CERTIFIED MAIL**

August 16, 1996

RE: MODIFIED AMENDED CLOSURE PLAN  
LTV STEEL CLEVELAND WORKS EAST  
EPA ID# OHD 004 218 673

Mr. Larry Szuhay  
LTV Steel Company  
Corporate Environmental Control Dept.  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Szuhay:

On July 11, 1994, LTV Steel Company submitted to Ohio EPA a modified amended closure plan for the degreaser sludge container located at your Cleveland Works East facility at 3100 East 45th Street, Cleveland, Ohio. Revisions to the modified amended closure plan were received on November 7, 1995. The modified amended closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that LTV Steel Cleveland Works East's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the modified amended closure plan of LTV Steel Cleveland Works East in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of LTV Steel Cleveland Works East's submittal and subsequent revisions, I conclude that the modified amended closure plan for the hazardous waste facility at 3100 East 45th Street in Cleveland, Ohio, as modified herein, meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency.

By: Mary Cavin Date 8-16-96

OHIO E.P.A.

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The modified amended closure plan submitted to Ohio EPA on July 11, 1994 and modified on November 7, 1995 by LTV Steel Cleveland Works East is hereby approved with the following modifications:

1. LTV shall submit quarterly reports during the two years of ground water monitoring. At a minimum, the reports shall contain:
  - a. field data sheets,
  - b. ground water flow map with well locations,
  - c. data summary,
  - d. analytical bench sheets with
    - 1) analytical method specified
    - 2) holding times,
    - 3) detection limits,
    - 4) results of lab QA\QC, and
  - e. chain-of-custody forms.
2. LTV shall submit the following documentation in order to adequately respond to Comment 1 from the Attachment A to the January 10, 1995 Notice of Deficiency:
  - a. LTV has not submitted the ground water flow maps for the October 1990 and June 1992 sampling events (OAC Rule 3745-65-93 (D) (3)). This information must be submitted with or prior to the first quarterly ground water monitoring report.
  - b. LTV has provided some specific information on the public and private water supply wells within one mile of the facility; however, the actual logs of these wells were not included in the revised plan. This information must be submitted with or prior to the first quarterly ground water monitoring report.
  - c. Within 90 days of completing the collection of the fourth quarter of ground water analytical samples, LTV shall specify the statistical method to be used in evaluating the data. The statistical method chosen shall be conducted separately for each of the compounds detected in the down gradient monitoring wells. The statistical method specified shall ensure protection of human health and the

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I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 8-16-96

environment. The U.S. EPA has published two documents that should be referenced when selecting and performing the statistical analysis of ground water quality analytical results.

U.S. EPA, Statistical Analysis of Ground water Monitoring Data at RCRA Facilities, Interim Final Guidance, April 1989.

U.S. EPA, Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance, April 1992.

- 3) LTV has not submitted a Ground Water Sampling and Analysis Plan (GWSAP) (OAC Rule 3745-65-92 (A)). LTV shall incorporate the information in 1) Section 3.0, "Sampling and Analysis Plan", 2) the response the Ohio EPA's January 1995 NOD, and 3) the additional comments below and prepare a comprehensive, stand-alone GWSAP that contains the information specified in OAC 3745-65-92 (A). The GWSAP shall be submitted within thirty (30) days of receipt of this letter.

- a. LTV has not specified equipment that will be used for well evacuation. This information must be included in the GWSAP.
- b. The modified amended closure plan proposes to analyze the ground water quality samples for perchloroethylene (tetrachloroethylene) and its degradation products: trichloroethylene, dichloroethylene and vinyl chloride. This list does not appear to be complete based on the analytical results of the June sampling event. Additional compounds were detected during the event and they are not included in the proposed parameter list.

LTV has agreed to analyze all ground water samples using U.S. EPA Method 8010. LTV shall analyze the first quarter ground water samples for the full 8010 parameter list. LTV may then propose a reduced site-specific parameter list based on the results of the first quarter 8010 analyses. The GWSAP shall be written to incorporate this comment.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carver Date 8-16-96

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- 4) LTV has not quantified the vertical and horizontal hydraulic conductivity of the uppermost aquifer system (UAS) If LTV installs any more than three existing and two proposed wells at the site, they must determine the vertical and horizontal conductivity of the UAS (OAC Rule 3745-65-93 (D) (3)).
- 5) LTV shall submit a "Supplementary Annual Report for Ground Water Monitoring Information" to the director by March 1st of each year. See Attachment A for guidance on completing the report.
- 6) The closure cost estimates (Appendix E) shall be revised to reflect the installation and sampling of two additional ground water monitoring wells. This information must be submitted with or prior to the first quarterly ground water monitoring report.

Please be advised that approval of this modified amended closure plan does not release LTV Steel Cleveland Works East from any responsibilities as required under Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

Notwithstanding compliance with the terms of the modified amended closure plan, the Director may, on the basis of any information that there is or has been a release of hazardous waste, hazardous constituents, or hazardous substances into the environment, issue an order pursuant to Section 3734.20 et seq. of the Revised Code or Chapters 3734 or 6111 of the Revised Code requiring corrective action or such other response as deemed necessary; or initiate appropriate action; or seek any appropriate legal or equitable remedies to abate pollution or contamination, or to protect public health or safety or the environment.

Nothing here shall waive the right of the Director to take action beyond the terms of the closure plan pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA") or to take any other action pursuant to applicable Federal or State law, including but not limited to the right to issue a permit with terms and conditions requiring corrective action pursuant to Chapters 3734 or 6111 of the Revised Code; the right to seek injunctive relief, monetary penalties and punitive damages, to undertake any removal, remedial, and/or response action relating to the facility, and to seek recovery for any costs incurred by the director in undertaking such actions.

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AUG 16 96

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I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency.

By: Mary Cavin Date 8-16-96



Mr. Larry Szuhay  
LTV Steel Company  
Page 5

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of, and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and an independent, registered professional engineer that the facility has been closed in accordance with the approved modified amended closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Sincerely,



Donald R. Schregardus  
Director

DRS/CP/cl  
Attachment

cc: Tom Crepeau, DHWM Central File, Ohio EPA  
Montee Suleiman, Ohio EPA, DHWM, CO  
Harriet Croke, Ohio Permit Section, U.S. EPA - Region V  
Chris Prosser, Ohio EPA, DHWM, NEDO  
Eric Adams, Ohio EPA, DDAGW, NEDO

OHIO E.P.A.

AUG 16 96

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carver Date 8-16-96

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State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020  
FAX (614) 644-2329

George V. Voinovich  
Governor

A.4.1

NOTICE OF DEFICIENCY

File

January 20, 1995

RE: MODIFIED AMENDED CLOSURE PLAN  
LTV STEEL COMPANY, INC.  
CLEVELAND WORKS-EAST  
DEGREASER SLUDGE CONTAINER  
~~OHD 004 218 073~~

CERTIFIED MAIL

Mr. Larry Szuhay  
LTV Steel Company  
Corporate Environmental Control Dept.  
3100 East 45th Street  
Cleveland, Ohio 44127

OHD 004 218 673

Dear Mr. Szuhay:

On July 11, 1994, Ohio EPA received from LTV Steel Company a modified amended closure plan for the degreaser sludge container located at your Cleveland Works - East facility, 3100 East 45th Street, Cleveland, Ohio.

This amended closure was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that the LTV Steel Company's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the amended closure plan in accordance with OAC Rule 3745-66-12. The public comment period extended from September 13, 1993 through October 18, 1993.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the amended plan, outlined in Attachment A.

Mr. Larry Szuhay  
LTV Steel Company  
Page Two

Please take notice that OAC Rule 3745-66-12 requires that a modified amended closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.

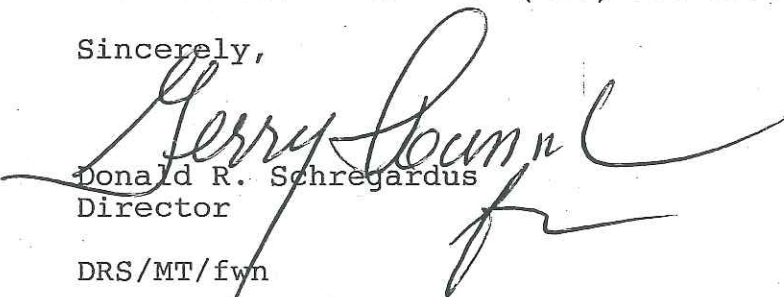
The modified amended closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The modified amended closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Manager, Data Management Section, P.O. Box 163669, Columbus, Ohio 43216-3669. A copy should also be sent to: Murat Tukel, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Upon review of the resubmitted plan, I will prepare and issue a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Murat Tukel at (216) 963-1200.

Sincerely,



Donald R. Schregardus  
Director

DRS/MT/fwn

cc: Tom Crepeau, DHWM Central File, Ohio EPA  
Harriet Croke, Ohio Permit Section, U.S. EPA - Region V  
Montee Suleiman, Ohio EPA, DHWM, CO  
Murat Tukel, Ohio EPA, DHWM, NEDO

ATTACHMENT A

LTV STEEL COMPANY; CLEVELAND WORKS-EAST  
DEGREASER SLUDGE CONTAINER

OHD 004 218 673

1. Section 3.4; Ground Water Monitoring:

LTV Steel Company (LTV) has failed to adequately respond to Item #10 of the Ohio EPA's Notice of Deficiency (NOD) letter dated May 3, 1994. LTV shall revise its closure plan to include the following;

- i) a description of the hydrogeologic conditions in the vicinity of the regulated unit as required by the OAC rule 3745-65-93(D)(3). The hydrogeologic site investigation report should contain the following at a minimum:
  - A) a detailed description of the hydrogeology under the regulated unit. The description shall include, but may not be limited to:
    - a) a description of the consolidated and unconsolidated stratigraphic units from the ground surface down to the base of the uppermost aquifer system (UAS) including:
      - I) hydraulic conductivity,
      - II) thickness,
      - III) lateral extent.
    - b) a description of the uppermost aquifer system and all significant zones of saturation above the UAS. The description shall include the depth to, and lateral and vertical extent of, the UAS and all significant zones of saturation above the UAS. This description shall include, but not limited to:
      - I) temporal fluctuations in ground water levels and the effects on ground water flow directions,
      - II) an interpretation of the ground water flow system, direction of flow, vertical and lateral components of flow and interconnections between and within the UAS and any significant zones of saturation above the UAS. This interpretation shall be described in both narrative and map form,

- III) identification and characterization of recharge and discharge areas in the vicinity of the regulated unit. This shall include any relationship of ground water with seeps, springs, streams and other surface water features,
  - IV) a quantification of the vertical and horizontal hydraulic conductivity of the UAS and all strata within the zone of saturation above the UAS.
- B) the well logs of public and private water supply wells within one mile of the facility.
- ii) a description of the ground water monitoring program which includes the following at a minimum:
- A) the dates samples were collected,
  - B) the full list of analytical parameters,
  - C) copies of the laboratory analytical results,
  - D) copies of the chain-of-custody control sheets.
- iii) the following information to determine whether wells MW-1,2 and 3 meet the requirements of OAC Rule 3745-65-91(C):
- A) drilling methods,
  - B) well installation procedures,
  - C) casing size,
  - D) screen slot size,
  - E) description of the filter pack material,
  - F) composition of the annular seal,
  - G) description of surface protection,
  - H) description of well development methods.
- iv) in order to meet requirements of the OAC rule 3745-65-92(A), the Ground Water Sampling and Analysis Plan (GWSAP) must be revised to include the procedures and techniques for:

- A) collecting ground water samples including:
  - a) well evacuation, specify amount to be purged,
  - b) sample withdrawal, specify bailer composition,
  - c) sample containers and handling,
  - d) sample preservation.
- B) performing field analysis including:
  - a) procedures and forms for recovering raw data and the exact location, time and facility specific considerations associated with the data acquisitions,
  - b) calibration of field instruments.
- C) disposal of purge water.
- D) ground water sample analysis of all applicable constituents associated with the facility including:
  - a) constituents, the entire analytical constituent list must be included in the closure plan,
  - b) detection limits for all analytical constituents,
  - c) sample holding time.
- E) quality assurance/quality control (QA/QC) including:
  - a) lab blanks,
  - b) duplicate samples,
  - c) potential interferences.
- F) the following chain-of-custody procedures:
  - a) standardized field tracking reporting forms to establish sample custody for the field prior to and during shipping,
  - b) sample labels containing all information necessary for effective sample tracking.
- v) detailed description of the Ground Water Quality Assessment Plan (GWQAP). The GWQAP submitted with the closure plan is not consisted with OAC rule 3745-65-93(D)(3). At a minimum, the plan should include the following:

- A) hydrogeologic conditions at the facility (see Item 1-i),
- B) the detection monitoring program implemented by the facility including, but not limited to:
  - a) the number, location, depth and construction of detection monitoring wells with written documentation (see Item 1-iii),
  - b) a summary of detection monitoring analytical data with written documentation of the results (see Item 1-ii),
  - c) a summary of statistical analyses applied to the data.
- C) the investigative approach to be followed during the assessment including, but not limited to:
  - a) the proposed number, location, depth, installation method, and construction of monitoring wells,
  - b) the proposed methods for gathering additional hydrogeologic information,
  - c) the proposed use of supporting methodology (e.g. soil gas analysis, geophysics),
  - d) the proposed methodology for determining contamination migration rates.
- D) sampling and analysis procedures as specified under paragraph (A) of Rule 3745-65-92 of the OAC (see Item 1-iv).
- E) proposed data evaluation procedures including, but not limited to:
  - a) utilization of statistical data evaluation,
  - b) utilization of computer models,
  - c) criteria that will be utilized to determine if additional assessment activities are warranted.
- F) a schedule of implementation.

2. Section 3.4; Ground Water Monitoring:

LTV has failed to adequately respond to Item #11 of the Ohio EPA's Notice of Deficiency (NOD) letter dated May 3, 1994. LTV has proposed to implement ground water quality assessment monitoring without performing statistical analysis of the ground water quality analytical results. LTV shall use an alternate ground water monitoring system as described in the OAC rule 3745-65-90(D).

3. Section 3.4; Ground Water Monitoring:

LTV has failed to adequately respond to Item #12 of the Ohio EPA's Notice of Deficiency (NOD) letter dated May 3, 1994. LTV shall revise its closure plan to include the determination of full horizontal and vertical extent of contamination in accordance with OAC rule 3745-65-93(D)(4) (see Item 1-v).

4. Section 3.4; Ground Water Monitoring:

LTV has failed to adequately respond to Item #13 of the Ohio EPA's Notice of Deficiency (NOD) letter dated May 3, 1994.

LTV has proposed to conduct quarterly ground water monitoring throughout soil vapor extraction (SVE) operation. LTV must collect two (2) years of site-specific ground water monitoring data for hazardous waste constituents to demonstrate that the operation of the hazardous waste management unit has not affected ground water quality within the vicinity of the unit to the extent that would be harmful to human health or the environment. A minimum of eight (8) consecutive ground water sampling events are required at the facility.

If LTV is (1) able to achieve "clean" closure through a risk assessment demonstration after eight quarters of ground water monitoring; (2) has conducted its ground water monitoring in accordance with OAC rules 3745-65-90 through 94; (3) has documented ground water concentration values below health based risk assessment standards and (4) can certify closure in accordance with OAC rule 3745-66-15, then ground water monitoring shall no longer be required.

If LTV is unable to demonstrate "clean" closure, then LTV shall amend the closure plan to describe an in-place closure as a "landfill" and continue to conduct ground water monitoring quarterly in accordance with OAC rule 3745-65-93(D)(7) until final closure. The amended closure and post-closure plan shall describe a ground water monitoring program that is to be implemented during the 30 year post closure period.



5. Section 3.5; Equipment Decontamination:

LTV shall revise its closure plan to include the appropriate rinseate standards for halogenated volatile organics. LTV shall consider the methodology provided in Section 3.10 of the Ohio EPA's Interim Final Closure Plan Review Guidance (September 1, 1993). Also the closure plan shall include an estimate volume of waste material which will be generated by the decontamination efforts.



State of Ohio Environmental Protection Agency

P.O. Box 163669, 1800 WaterMark Dr.  
Columbus, Ohio 43216-3669  
(614) 644-3020  
FAX (614) 644-2329

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JAN 11 1995

OFFICE OF RCRA  
WASTE MANAGEMENT DIVISION  
EPA REGION V

George V. Voinovich  
Governor

January 5, 1995

Re: Completion of Partial  
Closure Plan  
U.S. EPA ID No.  
OHD004218673

*File*

LTV Steel Cleveland  
Attn: Mr. Larry Szuhay  
Corporate Environmental Control Dept  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Szuhay:

According to Ohio EPA records, on December 28, 1993, the Director of Ohio EPA approved an amended closure plan submitted by LTV Steel Company, Inc., Cleveland Works-East. The plan concerned the electroplate storage tank area located at their facility. On September 27, 1994, LTV Steel Company, Inc. submitted to the Director certification documents stating that the hazardous waste electroplate storage tank area had been closed according to the specifications in the approved closure plan. Ohio EPA District Office personnel completed a certification of closure inspection and a review of documents pertaining to the hazardous waste electroplate storage tank area on October 11, 1994.

Based on this inspection and review, the Ohio EPA has determined that the electroplate storage tank area has been closed in accordance with the approved closure plan and Rules 3745-66-12 through 3745-66-15 of the Ohio Administrative Code (OAC). LTV Steel is currently operating as a treatment, storage & disposal (TSD) and large quantity generator (LQG).

Please contact the Ohio EPA, Northeast District Office, Attn: Murat Tukel, 2110 Aurora Road, Twinsburg, Ohio 44087, tel: (216) 963-1200 if you have any questions concerning the closure process or the facility's status.

Sincerely,

*Thomas E. Crepeau*

Thomas E. Crepeau, Manager  
Data Management Section  
Division of Hazardous Waste Management

cc: Harriet Croke, U.S. EPA, Region 5  
Ed Kitchen, DHWM  
Murat Tukel, NEDO



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State of Ohio Environmental Protection Agency

Northeast District Office

110 E. Aurora Road  
Columbus, Ohio 44087-1969  
(616) 425-9171  
FAX (216) 487-0769

TRACKING - DHWM, CM&ES

TO GO ON: ☒ RCRIS ☐ FO LOG ☐ USEPA LOG ☐ CJ LOG ☐ FILE  
ENTERED: ☒ RCRIS ☐ FO LOG ☐ USEPA LOG ☐ CJ LOG ☐ ONLY  
RCRIS ENTRY CODES: (EVALUATION) \_\_\_\_\_ (ENFORCEMENT) \_\_\_\_\_  
CEI ☐ CI ☐ OTHER \_\_\_\_\_ INITIAL NOV ☐ FOLLOW-UP NOV ☐  
FULL RTC ☐ PARTIAL RTC ☒ LDR ☐ SENT TO USEPA: YES ☐ NO ☐

George V. Voinovich  
Governor

May 31, 1994

RE: LTV STEEL COMPANY  
CLEVELAND WORKS-EAST  
CUYAHOGA COUNTY  
OHD 004 218 673  
LQG  
RETURN TO COMPLIANCE

CERTIFIED MAIL

Mr. R. L. Nemeth  
Mgr/Environmental Control Dept.  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

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JUL 29 1994

Dear Mr. Nemeth:

This office has received your May 2, 1994 response to the Ohio EPA's March 31, 1994 Notice of Violation letter.

Based upon a review of the submittal, it appears that LTV Steel Company has adequately addressed the three (3) large quantity generator violations noted in the Ohio EPA's March 31, 1994 letter. In regards to item #5, LTV's submittal was not found to be sufficient. In order to evaluate the facility's compliance status with the OAC rules 3745-66-90 through 93, LTV must provide written documentation demonstrating the ages of its hazardous waste tanks and secondary containment structures to this office. This documentation could be any written document (installation report, installation order, invoice etc.) demonstrating the dates submitted with the LTV Steel's May 2, 1994 letter.

Please be advised that instances of non-compliance can continue as subjects of pending or future enforcement actions.

If you should have any questions, please do not hesitate to call me at (216) 963-1192.

Sincerely,

Murat Tukel  
Environmental Engineer  
Division of Hazardous Waste  
Management

MT/fwn

cc: Laurie Stevenson, DHWM, CO  
Paul Anderson, DHWM, NEDO

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OHIO EPA

JUN 06 94

DIVISION of  
HAZARDOUS WASTE MGT.





State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020  
FAX (614) 644-2329

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AUG 01 1994

George V. Voinovich  
Governor

Donald R. Schregardus  
Director

NOTICE OF DEFICIENCY

May 3, 1994

RE: AMENDED CLOSURE PLAN  
LTV STEEL COMPANY, INC.  
CLEVELAND WORKS - EAST  
DEGREASER SLUDGE CONTAINER  
OHD 004 218 073

CERTIFIED MAIL

Mr. Larry Szuhay  
LTV Steel Company  
Corporate Environmental Control Dept. OHD 004 218 673  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Szuhay:

On July 20, 1993, Ohio EPA received from LTV Steel Company an amended closure plan for Cleveland Works East facility located at 3100 East 45th Street, Cleveland, Ohio.

This amended closure was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that the LTV Steel Company's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the amended closure plan in accordance with OAC Rules 3745-66-12 (and OAC 3745-66-18). The public comment period extended from September 13, 1993 through October 18, 1993. No public comments were received by Ohio EPA.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the amended plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 requires that a modified amended closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.

ATTACHMENT A

LTV-STEEL COMPANY; CLEVELAND WORKS-EAST  
DEGREASER SLUDGE CONTAINER

OHD 004 218 673

1. Section 2.1.3; Groundwater Chemical Analysis:

LTV Steel Company (LTV) shall revise its closure plan to include installation of at least three (3) monitoring wells hydraulically downgradient of the waste management area as required by the Ohio Administrative Code (OAC) 3745-65-91(A)(2). LTV shall install one more downgradient monitoring well in order to meet this requirement. LTV shall ensure that such wells immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

2. Section 2.2; General Description of Remedial Technology:

- a) LTV's statement of "Soil Vapor Extraction (SVE) removes hydrocarbons" (second paragraph, page 8) is only partially correct. SVE removes certain hydrocarbons under favorable conditions (i.e. permeable soil, high contaminant vapor pressure, depth, distance to groundwater, design of SVE system, etc.). Also, since LTV intends to treat some biodegradable constituents (i.e. PCE), biodegradation rates and soil properties have a considerable effect on SVE effectiveness and the constituents to be treated.
- b) LTV's closure plan states that the resulting off-gas discharges from the granular activated carbon unit to the atmosphere contains negligible organic constituents. LTV shall justify this statement providing supporting data. Also, LTV shall include more details on the water accumulation tank. If this tank will not be shipped off-site for treatment then LTV shall address the separated liquid phase of the SVE.

3. Section 2.3; Documentation of SVE Pilot Test:

LTV shall revise its closure plan to include the following:

- i) The pressure drop that the vacuum system has to overcome.
- ii) Soil conditions when the test was conducted (i.e. moisture content, particle size distribution, organic content, soil make-up, etc.).

- vii) In order not to short circuit air from the surface, it is recommended that depth to groundwater be greater than 10 feet. If groundwater is less than 10 feet below the surface, then LTV shall explain how the short circuiting will be controlled.
- viii) If there is a substantial variation in permeability, more than one screened internal or extraction well in a given location may be necessary to circulate air in contaminated soil regions.
- ix) The system should be operated under several pressures in order to determine the optimum operating pressure.

7. Section 2.4.1; In-Situ SVE System:

LTV shall revise its closure plan to include more details and a diagram of the proposed activated carbon adsorption system.

8. Section 2.4.2; Ex-Situ SVE System:

LTV shall revise its closure plan to include a scaled construction details diagram. LTV's closure plan, Figure 6 does not have a scale.

9. Section 3.3.2; In-Situ Soil:

LTV shall revise its closure plan to designate the six (6) soil boring locations more precisely by providing these locations on a map which indicates their locations with respect to the vapor extraction wells.

10. Section 3.4; Ground Water Monitoring:

LTV shall revise its closure plan to include the following ground water monitoring information at a minimum:

- i) the hydrogeologic conditions within the vicinity of the regulated unit;
- ii) a description of the ground water monitoring program that has been conducted throughout the life of the regulated unit, if any;
- iii) detailed information on the location, design and construction of the monitoring wells to be used for the ground water monitoring system to meet the requirements of the OAC rule 3745-65-91;



15. Section 4.0; Closure Performance Standard:

LTV shall revise its closure plan to state that the plan will be amended to include groundwater remediation details, if necessary. In this circumstance, LTV must revise its closure plan to account for groundwater remediation system design details (i.e. well designs, etc.) and a pilot test for groundwater remediation. LTV must demonstrate that the system to be used will be able to reduce ground water contamination to "clean" levels and meet closure performance standards defined in OAC rule 3745-66-11.

16. Section 6.0; Closure Schedule:

LTV shall revise its closure schedule to include the times when an independent engineer or his representative will be present. At a minimum, he/she should be present during all critical closure activities.

17. General:

LTV shall revise its closure plan to include the facility status after closure.

18. General:

LTV shall delete all references to the Ohio EPA's May 1, 1991 Closure Plan Guidance since a new guidance was issued in September 1, 1993. For your copy of this document, please contact Ms. Pat Swaney at (614) 644-2956.

19. General:

LTV shall revise its closure plan to include the details on equipment decontamination procedures.

20. General:

LTV shall revise its closure plan and schedule to state that the facility shall demonstrate that the SVE system has been issued a permit to install/permit to operate from the Division of Air Pollution Control, prior to conducting the pilot test or operating the SVE System for treatment of soils.



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020  
FAX (614) 644-2329

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George V. Voinovich  
Governor

Donald R. Schregardus  
Director

## NOTICE OF DEFICIENCY

September 20, 1993

RE: AMENDED CLOSURE PLAN  
LTV-STEEL COMPANY, INC.  
CLEVELAND EAST  
60" ELECTROPLATE LINE STORAGE  
TANKS AND CONTAINMENT AREA  
OHD 004 218 673

### CERTIFIED MAIL

Mr. Larry A. Szuhay  
LTV - Steel Company  
Corporate Environmental Control Dept.  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Szuhay:

On January 8, 1992, Ohio EPA received from LTV-Steel Company an amended closure plan for the 60-inch Electroplate SPL Storage Tank Area located at Cleveland Works East facility, 3100 East 45th Street, Cleveland, Ohio.

This amended closure was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that the LTV-Steel Company's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the amended closure plan in accordance with OAC Rule 3745-66-12. The public comment period extended from April 12, 1993 through May 19, 1993. No public comments were received by Ohio EPA.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the amended plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 requires that a modified amended closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.



Mr. Larry A. Szuhay - LTV Steel Company  
Page Two

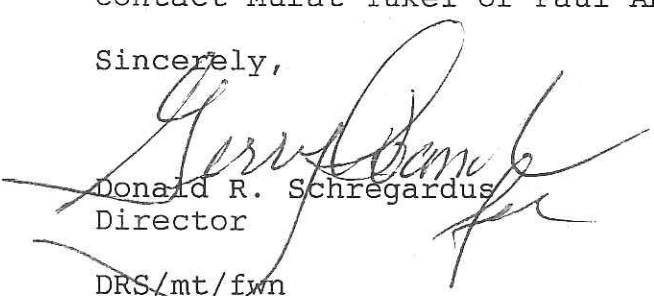
The modified amended closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The modified amended closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Tom Crepeau, Manager, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149. A copy should also be sent to: Murat Tukel, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Upon review of the resubmitted plan, I will prepare and issue a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Murat Tukel or Paul Anderson at (216) 963-1200.

Sincerely,



Donald R. Schregardus  
Director

DRS/mt/fwn

cc: Tom Crepeau, DHWM Central File, Ohio EPA  
Section Chief, Ohio Permit Section, U.S. EPA - Region V  
Randy Meyer, Ohio EPA, DHWM, CO  
Murat Tukel, Ohio EPA, DHWM, NEDO  
Paul Anderson, Ohio EPA, DHWM, NEDO

ATTACHMENT A

LTV-STEEL COMPANY; CLEVELAND WORKS-EAST  
60" ELECTROPLATE LINE SPL TANKS & CONTAINMENT AREA CLOSURE

OHD 004 218 673

1. LTV Steel Company (LTV) shall revise the slag background level calculations table (Table 1) found on page 9 of the closure plan to use the lower detection limit (10 mg/kg for lead) for the "non-detect" results in statistical calculations of the mean and standard deviation. Instead LTV used 0 mg/kg for "non-detect" results. The Ohio EPA also recommends that LTV consider reporting data to at least two decimal places (1/100s) for statistical calculations since it makes a significant difference in background level concentration results.
2. LTV shall revise its closure plan to include the correct action levels of the heavy metals of concern (chromium and lead) calculated from Ohio farm soils data (Logan and Miller, 1983). These action levels can be found in the Ohio EPA's Closure Plan Review Guidance (May 1, 1991) page 32. LTV shall compare its soil sample results with these action levels in order to demonstrate that the closure performance standards have been met.
3. LTV shall revise its containment dike repair specifications listed in page 12 of the closure plan to address the following modifications/procedures:
  - i) LTV shall rinse the containment dike before commencement of any repair activities. Please remove the "rinse if necessary" statement from this list. During dike rinsing, LTV shall cover the discovered joint failure in order to prevent further contamination of soils. Please be aware that the resultant rinseate is subject to the containment, sampling and disposal requirements included in the approved closure plan (July 1989).
  - ii) LTV shall await the results of the confirmation samples taken from the excavated trench before commencement of any repairs and backfilling the trench. LTV shall also list the precautions that will be taken during this waiting period in order to prevent further contamination of the soils (i.e. covering the trench, shutting down the storage tank, etc).
4. LTV shall revise the Figure 6 on page 13 to include the Section B-B cut (cross-section) on the plan view. LTV shall also provide a larger scale map of the containment dike repair area showing the exact sampling locations with more details.

5. LTV shall justify the minimum excavation of 1.2 feet below the top of the slab during dike repairs considering the lead contamination detected in the 2.5' - 3.0' level at TB-4.
6. LTV shall revise its sampling plan to include lead (Pb) in the analysis of soil and slag samples since it is a constituent of K062 and detected in slag and soils during the previous closure activities.
7. LTV shall revise its closure plan to include more details in equipment decontamination. LTV stated in its closure plan that the equipment decontamination will be performed at the Strip Mill Water Treatment Plant. The Ohio EPA has concerns regarding the equipment transfer to the decontamination area, the distance between the closure and decontamination areas and the details on this decontamination area. LTV shall provide more detailed information on these issues and a site map showing delineation of the work zones (exclusion, contamination reduction and support zones) at a minimum. Also LTV shall provide more detailed information on the cleaning materials that will be stored in drums if this decontamination area is not available.
8. LTV shall revise its health and safety plan to include the required personnel training credentials for all workers involved in closure activities. At a minimum all workers involved in closure shall meet the OSHA requirements.
9. LTV shall revise its health and safety plan to include the contingency plans to deal with emergencies and accidental exposures.
10. LTV shall revise its closure plan to include details on personnel decontamination procedures & methods and proper disposal and/or decontamination of personnel protection equipment.
11. LTV shall revise its closure schedule to include all the critical activities for closure including but not limited to dike decontamination, sampling, soil removal, critical points when an independent engineer or his representative will be present, independent engineer's certification, backfilling and other relevant activities.
12. LTV shall revise its closure plan to include a revised closure cost estimate.
13. LTV shall revise its Ohio EPA contact personnel list (Appendix E) by replacing North East District Office contact by Murat Tukel and Central Office contact by Randy Meyer.

14. LTV shall revise its closure plan to include the sections of Agency Notification, Status of Facility After Closure and Disposal of Closure Residuals (sections E, F and G) from the approved closure plan (July 1989).
-





State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.

Columbus, Ohio 43266-0149

(614) 644-3020

FAX (614) 644-2329

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OCT 12 1993  
P/A

George V. Voinovich  
Governor

Donald R. Schregardus  
Director

September 8, 1993

Re: Receipt of Amended  
Closure Plan  
U.S. EPA ID No.  
OHD004218673

LTV Steel Company  
Attn: Keith A. Nagel  
3100 East 45th Street  
Cleveland, Ohio 44127

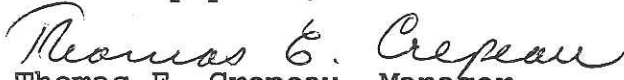
Dear Mr. Nagel:

This letter is to acknowledge receipt of the amended closure plan submitted by LTV Steel for the degreaser sludge container at the Cleveland Works East. A public notice concerning the receipt of the closure plan will appear the week of September 13, 1993, in the Cleveland Plain Dealer.

A copy of the closure plan will be available for public review at the Cleveland Public Library, Documents Collection, 325 Superior Avenue, Cleveland, Ohio 44114 until the end of the comment period on October 18, 1993.

Please contact the Ohio EPA, Northeast District Office, Attn: Murat Turkel, 2110 E. Aurora Road, Twinsburg, Ohio 44087, tel: 216-425-9171 if you have any questions.

Sincerely yours,



Thomas E. Crepeau, Manager  
Data Management Section  
Division of Hazardous Waste Management

cc. Harriet Croke, U.S. EPA, Region 5  
Randy Meyer, DHWM  
Murat Turkel, NEDO



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PUBLIC NOTICE

CUYAHOGA COUNTY

NOTICE OF RECEIPT OF AMENDED CLOSURE PLAN

Notice is hereby given that the Ohio EPA has received an amended hazardous waste closure plan from the LTV Steel Company for the Cleveland Works - East plant located at 3100 East 45th St., Cleveland, Ohio 44127. The plan concerns a degreaser sludge container unit. U.S. EPA ID No. OHD004218673. A copy of the amended closure plan will be available for public review at the Cleveland Public Library, Documents Collection, 325 Superior Ave., Cleveland, Ohio 44114, and at the Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087, tel: 216-425-9171. Comments concerning the amended closure plan may be submitted within thirty days of the date of this notice to: Ohio EPA, Division of Hazardous Waste Management, Attn: Data Management Section, 1800 Watermark Dr., Columbus, Ohio 43215, tel: 614-644-2977.



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020  
AX (614) 644-2329

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APR 19 1993

George V. Voinovich  
Governor

Donald R. Schregardus  
Director

OFFICE OF RCRA  
WASTE MANAGEMENT DIVISION  
EPA, REGION V

April 9, 1993

Re: LTV Steel Company, Inc.  
US EPA ID No.: OHD004218673  
Ohio ID No.: 02-18-0186  
Receipt of Amended Partial Closure Plan

LTV Steel Company, Inc.  
Attn: Mr. R.L. Nemeth  
3100 East 45th Street  
Cleveland, Ohio 44127

RECEIVED JUN 18 1993  
WMD RCRA  
RECORD CENTER  
*Per A*

Dear Mr. Nemeth:

A public notice acknowledging the Ohio EPA's receipt of an amended partial closure plan for the LTV Steel Company, Inc. facility located at 3100 East 45th Street, Cleveland, Ohio 44127 will appear the week of April 12, 1993 in The Plain Dealer, Cleveland, Ohio. The Director of the Ohio EPA will act upon the amended partial closure plan request following the close of the public comment period, May 19, 1993.

Copies of the amended partial closure plan will be available for public review at The Cleveland Public Library, 325 Superior Avenue, Cleveland, Ohio 44114 and the Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Please contact Randy Sheldon at (614) 644-2977, should you have any questions concerning this matter.

Very truly yours,

*Thomas E. Crepeau*

Thomas E. Crepeau, Manager  
Data Management Section  
Division of Hazardous Waste Management

TEC/RS/ds

cc: Harriet Croke, US EPA, Region V  
Randy Meyer, RCRA TAS, DHWM  
Dave Wertz, NEDO, DHWM

.../sheldon/wp-92/closerecit

PUBLIC NOTICE

Cuyahoga County

RECEIPT OF HAZARDOUS WASTE FACILITY  
AMENDED PARTIAL CLOSURE PLAN

For: LTV Steel Company, Inc., 3100 East 45th Street, Cleveland, Ohio 44127, US EPA ID No.: OHD004218673, Ohio ID No.: 02-18-0186. The Ohio Environmental Protection Agency (OEPA) is hereby giving notice of the receipt of a Hazardous Waste Facility Amended Partial Closure Plan involving the Hazardous Waste SPL Tanks & Containment Area and 60 Inch Electroplate Line for the above referenced facility.

Copies of the facility's amended partial closure plan will be available for public review at The Cleveland Public Library, 325 Superior Avenue, Cleveland, Ohio 44114 and the Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Comments concerning the amended partial closure plan should be submitted within thirty (30) days of this notice to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Data Management Section, PO Box 1049, Columbus, Ohio 43266-0149 and Ohio Environmental Protection Agency, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.





State of Ohio Environmental Protection Agency

RECEIVED MAY 05 1993  
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*Francine*

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020 Fax (614) 644-2329

Richard F. Celeste  
Governor

October 23, 1990

Re: LTV Steel Company, Inc.  
HW 84" Pickle Line Tanks  
US EPA ID No.: OHD004218673  
Ohio Permit No.: 02-18-0186  
Partial Closure Plan

*ES*  
LTV Steel Company, Inc.  
Attn: Mr. R. L. Nemeth  
3100 E. 45th Street  
Cleveland, Ohio 44127

Dear Mr. Nemeth:

This letter is to inform you of the acceptance by the Ohio EPA of the owner/operator and independent professional engineer certifications for closure of the hazardous waste unit(s) at your facility as indicated above. The partial closure process for these unit(s) as required by Rule 3745-66-15 of the Ohio Administrative Code (OAC) has now been completed. Ohio EPA District Office personnel have also completed a post-closure inspection of the partial closure activities at your facility.

Please be advised that submittal of a closure plan is required under state and federal law and regulations for the cessation of any other hazardous waste units covered by a permit at your facility. Moreover, this letter does not relieve you of any post-closure responsibilities for land disposal units required by the approved partial closure plan or OAC Rule 3745-66-18.

If you have any questions concerning your status or the submittal of closure plans, please contact the Ohio EPA, Northeast District Office, Attn: Greg Taylor, 2110 E. Aurora Road, Twinsburg, Ohio 44087, tel.: (216) 425-9171.

Very truly yours,

*Thomas E. Crepeau*

Thomas E. Crepeau, Manager  
Data Management Section  
Division of Solid and Hazardous Waste Management

TC/RS/ds

cc: Lisa Pierard, US EPA, Region V  
Hazardous Waste Facility Board  
Randy Meyer, RCRA TAS, DSHWM  
Lori Stevenson, RCRA ES, DSHWM  
Greg Taylor, DSHWM, NEDO

2006R(75)



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149  
(614) 644-3020 Fax (614) 644-2329

Richard F. Celeste  
Governor

*Francine*

CLOSURE PLAN EXTENSION APPROVAL

CERTIFIED MAIL

August 30, 1990

Re: Closure Plan Extension  
LTV Steel Company  
OHD004218673

Mr. T.J. Harlan  
LTV Steel Company  
Cleveland East  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Harlan:

On July 9, 1990, LTV Steel Company submitted a request for an extension to the closure period specified in the approved closure plan until November 17, 1990. The extension request was submitted pursuant to Rule 3745-66-13(B) of the Ohio Administrative Code (OAC) as closure will require longer than the 180 day period specified in OAC Rule 3745-66-13. LTV Steel Company has requested this extension of time due to the discovery of unexpected soil contamination.

LTV Steel Company will continue to take all steps necessary to prevent a threat to human health and the environment from the unclosed but inactive waste management unit per OAC Rule 3745-66-13(B) (2).

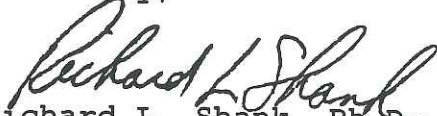
An extension of time allowed for closure is hereby granted until November 17, 1990.

Please be advised that approval of this closure extension request does not release LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.



When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and a qualified, independent, registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,

  
Richard L. Shank, Ph.D.  
Director

RLS/PLV

cc: Paul L. Vandermeer, Ohio EPA, DSHWM  
Lisa Pierard, USEPA, Region V  
Joel Morbito, USEPA, Region V  
Tom Crepeau, Ohio EPA, DSHWM Central File  
Greg Taylor, Ohio EPA, NEDO



State of Ohio Environmental Protection Agency

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

P. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149

By: Mary Carr Date 6-7-90

Richard F. Celeste  
Governor

Francine

## CLOSURE PLAN EXTENSION APPROVAL

### CERTIFIED MAIL

June 7, 1990

Re: Closure Plan Extension  
LTV Steel Company  
OHD004218673

Mr. Tom Harlan, Jr.  
LTV Steel Company-Cleveland East  
3100 E. 45th Street  
Cleveland, Ohio 44127

Dear Mr. Harlan:

On February 22, 1990, LTV Steel Company submitted a request for an extension to the closure period specified in the approved closure plan for 90 days (until June 5, 1990). The extension request was submitted pursuant to Rule 3745-66-13(B) of the Ohio Administrative Code (OAC) as closure will require longer than the 180 day period specified in OAC Rule 3745-66-13. LTV Steel Company has requested this extension of time due to adverse weather conditions.

Therefore, closure of the hazardous waste 84 inch pickle line tank and 60 inch electroplate line tank will require greater than 180 days because of adverse weather conditions. LTV Steel Company will continue to take all steps to prevent a threat to human health and the environment from the unclosed but inactive waste management unit per OAC Rule 3745-66-13(B)(2).

The public was given the opportunity to submit written comments regarding the request for extension to the closure period for LTV Steel Company in accordance with OAC Rule 3745-66-13. The public notice appeared the week of March 12, 1990 in the Plain Dealer. No comments were received by Ohio EPA in this matter.

An extension of time allowed for closure is hereby granted for 90 days (until June 5, 1990).

Please be advised that approval of this closure extension request does not release LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

OHIO E.P.A.  
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Notwithstanding compliance with the terms of the closure plan, the Director may, on the basis of any information that there is or has been a release of hazardous waste, hazardous constituents, or hazardous substances into the environment, issue order pursuant to Section 3734.20 et seq of the Revised Code or Chapters 3734 or 6111 of the Revised Code requiring corrective action or such other response as deemed necessary; or initiate appropriate action; or seek any appropriate legal or equitable remedies to abate pollution or contamination or to protect public health or safety or the environment.

Nothing here shall waive the right of the Director to take action beyond the terms of the closure plan pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA") or to take any other action pursuant to applicable Federal or State law, including but not limited to the right to issue a permit with terms and conditions requiring corrective action pursuant to Chapters 3734 or 6111 or the Revised Code; the right to seek injunctive relief, monetary penalties and punitive damages, to undertake any removal, remedial, and/or response action relating to the facility, and to seek recovery for any costs incurred by the Director in undertaking such actions.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 6-7-90

OHIO E.P.A.

JUN -7 90

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When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and a qualified, independent, registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,

  
Richard L. Shank, Ph.D.

RLS/PLV

cc: Paul L. Vandermeer, Ohio EPA, DSHWM  
Lisa Pierard, USEPA, Region V  
Joel Morbito, USEPA, Region V  
Tom Crepeau, Ohio EPA, DSHWM Central File  
Greg Taylor, Ohio EPA, NEDO

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 6-7-90

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State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149

Richard F. Celeste  
Governor

## CLOSURE PLAN APPROVAL

### CERTIFIED MAIL

January 19, 1990

Re: Closure Plan  
LTV Steel Company  
OHD 004 218 673

Part A TSD

Mr. Larry A. Szuhay  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency.

By: Mary Carrin Date 1-19-90

Dear Mr. Szuhay:

On November 21, 1988, LTV Steel Company submitted to Ohio EPA a closure plan for a hazardous waste storage area located at 3100 East 45th Street, Cleveland, Ohio. Revisions to the closure plan were received on November 17, 1989. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that LTV Steel Company's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of LTV Steel Company in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at LTV Steel Company meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The closure plan submitted to Ohio EPA by LTV Steel Company is hereby approved with the following modifications:

1. Page 10. If LTV Steel cannot adequately clean the degreaser sludge container to appropriate "clean" levels, then the sludge container shall be disposed as hazardous waste. "Alternate concentration limits" are not applicable in this circumstance.
2. Page 11 and Figure 4. LTV Steel shall take a soil boring from the eastern side of the container area in addition to the other four areas in order to fully explore possible PCE contamination surrounding the unit.

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

JAN 19 1990

3. Page 11. LTV Steel shall include vinyl chloride in soil sample analyses as this is a degradation product of tetrachloroethylene. Concentrations of vinyl chloride in soils above the detection limit shall be indicative of soil contamination. These soils contaminated with vinyl chloride shall be managed as hazardous waste.
4. Pages 13 & 15. LTV Steel has a different definition of "field blank" than Ohio EPA. Ohio EPA is of the understanding that blank samples collected to determine adequate equipment decontamination are called "equipment blanks." "Field Blanks" are collected directly from the water source for rinsing contaminated materials to determine if any other field conditions are contributing to concentrations of contaminants in samples. The company shall revise these procedures accordingly.
5. Page 16. LTV Steel shall perform confirmatory sampling after excavations of contaminated substrates are completed. Confirmatory sampling shall occur using the following formula to calculate a grid interval (GI):

$$GI = \frac{(A / \pi)^{1/2}}{2}$$

A = area to be gridded.

A sampling grid shall be implemented in the area following substrate remediation efforts in order to confirm removal of contaminated substrate.

6. Page 18. LTV Steel provides little detail regarding decontamination of personnel performing closure. Personnel performing closure shall remove contaminated clothing and wash in a segregated zone adjacent to the site (a small trailer is useful for this purpose) in order to prevent spread of contaminants and self-contamination.

Please be advised that approval of this closure plan does not release LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

Notwithstanding compliance with the terms of the closure plan, the Director may, on the basis of any information that there is or has been a release of hazardous waste, hazardous constituents, or hazardous substances into the environment, issue order pursuant to Section 3734.20 et seq of the Revised Code or Chapters 3734 or 6111 of the Revised Code requiring corrective action or such other response as deemed necessary; or initiate appropriate action; or seek any appropriate legal or equitable remedies to abate pollution or contamination or to protect public health or safety or the environment.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carr Date 1-19-90

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

JAN 19 1990



Nothing here shall waive the right of the Director to take action beyond the terms of the closure plan pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA") or to take any other action pursuant to applicable Federal or State law, including but not limited to the right to issue a permit with terms and conditions requiring corrective action pursuant to Chapters 3734 or 6111 of the Revised Code; the right to seek injunctive relief, monetary penalties and punitive damages, to undertake any removal, remedial, and/or response action relating to the facility, and to seek recovery for any costs incurred by the Director in undertaking such actions.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and an independent registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Program Planning and Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Richard L. Shank, Ph.D.  
Director

RLS/PV/pas

cc: Paul Vandermeer, Ohio EPA, DSHWM  
Joel Morbito, USEPA - Region V  
Tom Crepeau, Ohio EPA, DSHWM

Lisa Pierard, USEPA-Region V  
Greg Taylor, NEDO, Ohio EPA

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I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carver Date: 1-19-90

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

JAN 19 1990



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149

Richard F. Celeste  
Governor

CLOSURE PLAN DISAPPROVAL

Issuance Date September 6, 1989

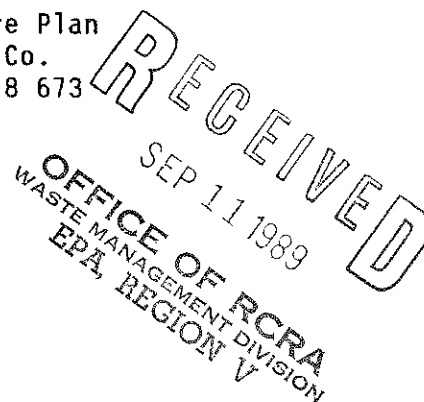
Effective Date October 6, 1989

CERTIFIED MAIL

September 6, 1989

Re: Closure Plan  
LTV Steel Co.  
OHD 004 218 673

Mr. Larry Szuhay  
LTV Steel Co.  
Cleveland Works - East  
3100 E. 45th Street  
Cleveland, OH 44127



Dear Mr. Szuhay:

On November 21, 1988, LTV Steel Co. submitted to Ohio EPA a closure plan for a hazardous waste storage tank (degreaser sludge container) located at 3100 E. 45th Street, Cleveland, Ohio. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that LTV Steel Co.'s proposal for closure complies with the requirements of OAC Rules 3745-66-11, 3745-66-12 and 3745-66-18.

The public was given the opportunity to submit written comments regarding the closure plan of LTV Steel Co. in accordance with OAC Rule 3745-66-12 and 3745-66-18. The public comment period extended from January 2, 1989, to February 8, 1989. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at LTV Steel Co. does not meet the performance standard contained in OAC Rule 3745-66-11 and does not comply with the pertinent parts of OAC Rule 3745-66-12 and 3745-66-18.

The closure plan submitted to Ohio EPA by LTV Steel Co. is hereby disapproved (see Attachment A).

You are notified that this action of the Director is issued as a proposed action pursuant to ORC Section 3745.07. This action will become final on the effective date indicated unless you or an objector files an appeal requesting an adjudication hearing within thirty (30) days of the date of issuance of this action. The adjudication hearing will be conducted in accordance with OAC Chapter 3745-47. The request for a hearing shall specify the issues of fact and law to be contested. Requests for hearings shall be sent to: Ohio Environmental Protection Agency, Hearing Clerk, 1800 WaterMark Drive, P.O. Box 1049, Columbus, OH 43266-0149.

A modified closure plan addressing the deficiencies enumerated in Attachment A must be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter in accordance with OAC 3745-66-12 and 3745-66-18. The modified closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Manager, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149. A copy should also be sent to: Gregory Taylor, Ohio EPA, Northeast District Office, 2110 East Aurora, Twinsburg, Ohio 44087.

Sincerely,



Richard L. Shank, Ph.D.  
Director

RLS/PV/ps

cc: DSHWM Central File, Ohio EPA  
Lisa Pierard, USEPA, Region V  
Gregory Taylor, NEDO, Ohio EPA  
Paul Vandermeer, DSHWM, Ohio EPA  
Joel Morbito, USEPA, Region V

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ATTACHMENT A  
LTV Steel Co.  
OHD 004 218 673

1. The closure plan shall be revised to specify whether closure of the sludge container is a partial or final hazardous waste management facility closure. The closure plan shall also be revised to list all hazardous waste management units referenced in the facility's Part A application.
2. The closure plan states that the existing container will be emptied and properly disposed. This does not adequately describe procedures for removal, treatment, and disposal of the sludge container waste inventory. At the beginning of closure, hazardous waste inventory in the sludge container shall be removed and disposed in order to dispose or decontaminate the container. LTV Steel shall revise the closure plan to identify the amount of waste in inventory at closure and describe how the inventory will be removed, including a discussion of the following:

- \* Waste removal from the container;
- \* A description of any on-site treatment to be performed prior to shipment off-site, if appropriate; and
- \* Waste transport, including an estimate of the amount of waste to be sent off-site, if any.

F001 wastes are prohibited from land disposal effective November 7, 1986 (see 51 FR 40572). LTV Steel shall specify in the closure plan how they will manage the sludge to comply with the spent solvent land disposal restrictions found in 40 CFR 268.

3. If LTV Steel intends to dispose of the waste inventory off-site, LTV Steel shall revise the closure plan to specify how the wastes will be managed off-site. The closure plan shall also state that once LTV has selected an off-site facility for treatment and/or disposal of the waste, LTV will submit the following information to the Director prior to waste shipment:
- \* The name and EPA I.D. number of the facility;
  - \* An estimate of the approximate distance to the final treatment or disposal facility;
  - \* The operational status of the facility (i.e., interim status or permitted); and
  - \* A description of the treatment or disposal methods to be used at the final treatment or disposal facility.

4. The closure plan shall be revised to provide criteria for determining the extent of decontamination necessary for all contaminated equipment, structures, and soils. The closure plan does not provide adequate criteria for determining the extent of decontamination required for gravel, soils, and the sludge container. Closure shall minimize the need for further maintenance; and control, minimize, or eliminate to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, constituents, leachate, contaminated runoff, and hazardous waste decomposition products to the ground, surface waters, or to the atmosphere.
5. The closure plan does not provide an adequate description of the decontamination steps (i.e., sequence of activities) to be followed in performing the closure. The closure plan shall be revised to provide a description of the decontamination steps which will be followed. This description shall describe the sequencing of decontamination activities for the sludge container, gravel, and soils, in order to demonstrate that the closure process will be carried out in a manner which minimizes the spread of any existing contamination to uncontaminated areas, and the potential release of hazardous waste or constituents to the environment.
6. The closure plan does not adequately describe the procedures that will be followed in cleaning equipment and structures and removing contaminated soils.

The closure plan does not address removal and disposal of the sludge container and contaminated soils and gravel (if applicable). The closure plan shall provide the following information on removal, decontamination (if applicable), and disposal of the container and any contaminated substrate.

- \* A description of any on-site activities to decontaminate the container and contaminated soils or gravel (if applicable), including the location of decontamination, decontamination procedures, and procedures for collecting and disposing decontamination residues or rinseate as a hazardous waste. Equipment and the storage container shall be considered clean when concentrations of hazardous wastes or hazardous waste constituents in the rinseate fall below the maximum contaminant level (MCL) as promulgated in OAC 3745-81-12 for organics. If an MCL is unavailable for a particular contaminant, then the maximum contaminant level goal (MCLG) as promulgated in 40 CFR 141.50 shall be used as the clean standard. If neither an MCL or MCLG is available, 1 mg/l shall be used as the clean standard. If the MCL or MCLG is less than the contaminant's analytical detection limit (ADL) using methods found in SW-846, then the SW-846 ADL shall be used as the clean standard.
- \* Method of removal and transportation.
- \* Method of final decontamination and/or disposal.

7. The soil sampling program description in the closure plan is inadequate. LTV Steel proposes a trench excavation and sampling program to evaluate whether any perchloroethylene has been released to soils or fill. The sludge container was located on an unlined gravel pad; therefore, a sampling program to identify and determine the vertical and horizontal extent of any soil or fill contamination is appropriate. However, LTV shall revise the closure plan to:

- \* Identify any areas on the gravel pad where leaks or spills are known to have occurred or are likely to have occurred, based on operating methods and the operating history of the sludge container;
- \* Identify the proposed locations and extent of the test pits on the gravel pad and indicating a supporting rationale for the number and locations of test pits while providing a layout showing the locations of the pits;
- \* Provide for soil samples to be taken at one-foot depth intervals within the first four feet of the ground surface.
- \* Provide additional details on the procedures and location for decontaminating the backhoe between test pits and upon completion, including procedures for collecting and treating or disposing rinseates and preventing contamination of clean areas.

8. The closure plan does not address removal and disposal of potentially contaminated soils. The plan shall be revised to:

- \* Provide an estimate of potential amounts of contaminated soils;
- \* Describe how contaminated soils will be removed or decontaminated;
- \* Provide a description of equipment and personnel staging area(s) which will be used during closure operations including details on the design, construction materials, and operation of the staging area(s);
- \* Provide a description of methods which shall be used to prevent cross-contamination of soils during the excavation and transportation of contaminated soils to the staging areas;
- \* Describe measures which will be taken in the event there is a spill on uncontaminated soil during contaminated soil removal;
- \* Provide a description of an air monitoring program which shall be implemented during contaminated soil excavation and removal to measure the concentrations of volatile organic vapors and particulates;
- \* Page 10 describes Level D protective clothing to be worn during closure. LTV Steel shall demonstrate that this level of protective clothing is adequate for all closure activities or provide criteria that will be used to determine the level of protective clothing to be worn based on the concentrations of organic vapors and particulates generated during excavation and removal operations;



- \* Provide a description of the dust suppression techniques (i.e, tarps or wetting agents) which will be used during excavation;
- \* Provide a description of the procedure to be implemented if a sampling point exceeds background and/or analytical detection limits. Specify how contaminated soil around the sampling point will be excavated in a logical, layer-by-layer sequence. Indicate the thickness of each layer to be removed at the new depth until the soil is determined to be clean;
- \* Identify methods to be used for treatment and disposal of contaminated soils; and
- \* Describe sampling and analysis procedures to be used to determine that contaminated soil removal is complete.

In revising the closure plan, LTV should note that soils contaminated with perchloroethylene (or any other F001-F005 listed solvent) are subject to land disposal restrictions under 40 CFR 268.

9. The closure plan shall specify the methods for sampling and testing to be used to demonstrate the success of decontamination or removal of contaminated gravels, soils, structures, and equipment. LTV has provided no sampling and analysis program to demonstrate that decontamination and/or removal of the sludge container, gravel, and any contaminated soils will meet the closure performance standard. LTV shall revise the plan to provide the following.

- \* A sampling and analysis program for rinseate from sludge container decontamination to demonstrate that decontamination is complete in accordance with the performance standard, if decontamination will be conducted on-site;
- \* A sampling and analysis program for gravel in the gravel pad for demonstrating that all contaminated gravel has been removed and/or decontaminated; and
- \* A sampling and analysis program for soils to demonstrate the adequacy of removal of any contaminated soils. LTV has provided a sampling program for soils to determine if contamination is present, which has been commented on above. LTV shall also provide a sampling and analysis program for determining when soil removal activities, if necessary, are complete (i.e. achieve the performance standard).

The sampling and analysis programs shall identify the type, number, and, location of samples to be taken; the sampling methods and equipment to be used; the parameters to be analyzed for, which must, at a minimum, be those identified in the revised closure plan the analytical methods to be used; evidence of laboratory QA/QC procedures; and a clear statement of the "clean" level that will apply. Soils shall be considered clean when concentrations of organics (i.e. PCE and its degradation products) fall

below the analytical detection limit as noted in the USEPA Publication SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Third Edition.

10. The closure schedule does not provide sufficient detail to track closure of the unit. The schedule provided for closure of the sludge container shall include time periods for the following:
  - \* Removal of waste inventory;
  - \* Container removal and decontamination or disposal;
  - \* Equipment decontamination, analytical testing to demonstrate successful decontamination, and management of decontamination rinseate;
  - \* Critical points during closure when an independent, registered professional engineer (PE) or the PE's representative will be present.
11. Include in the closure plan a statement that if an unexpected event occurs during closure which requires modification of the closure plan, LTV will submit an amended closure plan to the Director no later than 30 days after the unexpected event occurs.
12. The revised closure plan must include the following statement concerning certification of closure:

The certification will be signed by both the owner/operator and the independent registered professional engineer and will be submitted to the Director by registered mail. The owner's/operator's and independent registered professional engineer's certifications of closure shall follow the signature requirements found in Ohio Administrative Code (OAC) 3745-50-42. The owner's/operator's certification statement shall follow the exact wording found in OAC 3745-50-42(D). Documentation supporting the independent registered professional engineer's certification shall be furnished to the Director upon request until the Director releases the owner/operator from the financial assurance requirements for closure under 40 CFR 265.143(h).

13. LTV has provided a closure cost estimate in 1989 dollars. The cost estimate explicitly excludes costs for contaminated gravel and soil removal and confirmatory sampling. These costs shall be included in the cost estimate. Additionally, the estimate is not sufficiently detailed and shall be revised to provide the detail described below and to include any revisions to the closure plan made in response to this disapproval letter.

The estimate to be provided with the revised closure plan shall be a detailed line item estimate. The cost estimate shall include, but not be limited to the following items as appropriate:

- \* Removal of waste inventory in compliance with 40 CFR 268;
- \* Transportation and disposition of waste inventory;
- \* Waste analyses;
- \* Protective clothing and equipment;
- \* Decontamination and/or disposal of the sludge container and equipment used in closure;
- \* Removal of hazardous waste residues & rinseate;
- \* Transportation and disposition of hazardous waste residues and rinseate;
- \* Shipping and analysis of soil samples for all parameters required based on the performance standard (see comment I.A.);
- \* Removal and disposal of any contaminated soils and gravel;
- \* Sampling of decontamination rinseate to determine the success of equipment decontamination;
- \* Shipping and analysis of rinseate samples; and
- \* Labor costs.

1890U



State of Ohio Environmental Protection Agency

Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149

Richard F. Celeste  
Governor

CLOSURE PLAN APPROVAL

CERTIFIED MAIL

September 5, 1989

Re: Closure Plan  
LTV Steel - Cleveland East  
Tanks, 84 inch pickle line  
OHD 004 218 673

Mr. Larry A. Szuhay  
LTV Steel - Cleveland East  
3100 E. 45th Street  
Cleveland, Ohio 44127

RECEIVED

SEP 08 1989

U. S. EPA, REGION V  
SWB - PMB

RECEIVED  
SEP - 7 1989  
OFFICE OF RCRA  
WASTE MANAGEMENT DIVISION  
EPA, REGION V

Dear Mr. Szuhay:

On November 21, 1988, LTV Steel - Cleveland East submitted to Ohio EPA a closure plan for two hazardous waste storage tanks from the 84 inch pickle line located at 3100 E. 45th Street, Cleveland, Ohio. Revisions to the closure plan were received on July 26, 1989. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that LTV Steel - Cleveland East's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of LTV Steel - Cleveland East in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that, with modifications, the closure plan for the hazardous waste facility at LTV Steel - Cleveland East meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The closure plan submitted to Ohio EPA by LTV Steel - Cleveland East is hereby approved with the following modifications:

1. LTV Steel Co. mentions the use of alternate concentration limits as clean-up standards for the tanks and containment structures should three (3) washes and rinses fail to clean the units. This is a misapplication of OAC 3745-54-94 and shall be deleted from the closure plan. If three (3) washes and rinses are unable to clean the tanks and/or the containment structures satisfactorily, then they shall be disposed as hazardous waste.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Pat Egan Date: 9-5-89

Ohio Environmental Protection Agency  
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SEP 05 1989

2. In order to make an adequate determination of soil background, the company shall make all sixteen (16) background soil borings and take samples from each in the proper horizons. Four background samples used as an initial screening as mentioned in the revised closure plan is not a satisfactory arrangement and shall be deleted from the closure plan. Background samples shall be selected in consultation with Ohio EPA (Greg Taylor, NEDO and Paul Vandermeer, CO).

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and an independent registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Program Planning and Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Richard L. Shank, Ph.D.  
Director

RLS/PV/pas

cc: Paul Vandermeer, Ohio EPA, DSHWM  
Lisa Pierard, USEPA-Region V  
Joel Morbito, USEPA - Region V  
Tom Crepeau, Ohio EPA, DSHWM Central File  
Greg Taylor, NEDO, Ohio EPA

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I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Pat Evans

Date: 9-5-89

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

SEP 05 1989





State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149

Richard F. Celeste  
Governor

*Francine*

CLOSURE PLAN DISAPPROVAL  
Issuance Date JUN 06 1989  
Effective Date JUL 06 1989

CERTIFIED MAIL

June 7, 1989

Re: Closure Plan  
LTV Steel - Cleveland East  
OHD 004 218 673

Mr. Larry A. Szuhay  
LTV Steel - Cleveland East  
3100 E. 45th Street  
Cleveland, OH 44127

Dear Mr. Szuhay

On November 21, 1988, LTV Steel - Cleveland East submitted to Ohio EPA a closure plan for two (2) hazardous waste storage tanks from the 84 inch pickle line located at 3100 E. 45th Street, Cleveland, Ohio. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that LTV Steel - Cleveland East's proposal for closure complies with the requirements of OAC Rules 3745-66-11, 3745-66-12 and 3745-66-18.

The public was given the opportunity to submit written comments regarding the closure plan of LTV Steel - Cleveland East in accordance with OAC Rule 3745-66-12 and 3745-66-18. The public comment period extended from January 2, 1989, to February 8, 1989. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at LTV Steel - Cleveland East does not meet the performance standard contained in OAC Rule 3745-66-11 and does not comply with the pertinent parts of OAC Rule 3745-66-12 and 3745-66-18.

The closure plan submitted to Ohio EPA by LTV Steel - Cleveland East is hereby disapproved (see Attachment A).

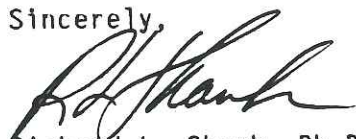


Due to the fact that the Ohio EPA is not currently authorized to conduct the federal hazardous waste program in Ohio, your closure plan also must be reviewed by USEPA. Federal RCRA closure regulations (40 CFR 265.112) require that you submit a closure plan to Lisa Pierard, Chief, Waste Management Division, Technical Programs Section, Ohio Unit, USEPA, Region V, 5HS-13, 230 South Dearborn Street, Chicago, Illinois 60604. Review and approval of the closure plan by both agencies is necessary prior to commencement of activities required by the approved closure plan.

You are notified that this action of the Director is issued as a proposed action pursuant to ORC Section 3745.07. This action will become final on the effective date indicated unless you or an objector files an appeal requesting an adjudication hearing within thirty (30) days of the date of issuance of this action. The adjudication hearing will be conducted in accordance with OAC Chapter 3745-47. The request for a hearing shall specify the issues of fact and law to be contested. Requests for hearings shall be sent to: Ohio Environmental Protection Agency, Hearing Clerk, 1800 WaterMark Drive, P.O. Box 1049, Columbus, OH 43266-0149.

A modified closure plan addressing the deficiencies enumerated in Attachment A must be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter in accordance with OAC 3745-66-12 and 3745-66-18. The modified closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Manager, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149. A copy should also be sent to: Gregory Taylor, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Sincerely,



Richard L. Shank, Ph.D.  
Director

RLS/PV/ps

cc: DSHWM Central File, Ohio EPA  
Lisa Pierard, USEPA, Region V  
Gregory Taylor, NEDO, Ohio EPA  
Paul Vandermeer, DSHWM, Ohio EPA  
Joel Morbito, USEPA, Region V

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## ATTACHMENT A

### LTV STEEL CLEVELAND EAST

1. LTV Steel shall correct the reference to "Part A Application line item 1" to "Part A Application line item 2."
2. LTV Steel shall require the independent, registered professional engineer to inspect the secondary containment system and the yard sump for any evidence of containment failure (i.e., cracks and fissures penetrating the three layers of containment including bricks, bituminous layer, and concrete in the secondary containment area or the concrete of the yard sump). If the containment system for either area has been breached, then LTV Steel shall sample underlying soils to check for migration of contaminants into the soils. Also, soils shall be sampled from areas of known spillage outside of the containment system (e.g. truck loading area). If LTV Steel can demonstrate that the containment system is intact and that no significant spillage has occurred outside of the containment area, then soil samples need not be taken.
3. LTV Steel shall notify Greg Taylor, Ohio EPA, NEDO of the occurrence of closure events (e.g. waste removal, containment inspection, decontamination sampling, etc.) at least five (5) business days prior to their implementation so he may observe these activities and/or collect split samples.
4. The rinseate clean levels proposed by LTV Steel for the SPL tanks and containment area are inadequate. The tanks and containment area shall be considered "clean" when concentrations of hazardous waste or hazardous waste constituents fall below the maximum contaminant level (MCL) as promulgated in OAC 3745-81-11 for inorganics. The "clean" range for pH shall be from 4.7 through 9 S.U. If the MCL is less than the contaminant's analytical detection limit (ADL) using methods found in USEPA Publication SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" Third Edition, the SW-846 ADL shall be used as the clean standard. Rinseates exceeding the above concentrations or exhibiting hazardous characteristics (i.e. corrosivity) shall be managed as hazardous waste.
5. LTV Steel shall notify Greg Taylor, Ohio EPA, NEDO of the hazardous waste disposal facility to be used to handle ultimate disposal of the hazardous wastes generated during closure. This shall be done at least fifteen (15) days prior to the beginning of disposal.
6. The owner/operator's and independent, registered professional engineer's certifications of closure shall follow the signature requirements found in OAC 3745-50-42. The owner/operator certification of closure shall follow the exact wording found in OAC 3745-50-42(D).

7. Should soil remediation become necessary, the clean levels for soils proposed by LTV Steel are satisfactory. Background sample locations shall be unimpacted by any solid or hazardous waste management activity and selection of background sampling locations shall occur only with the approval of Greg Taylor, Ohio EPA, NEDO. Ohio EPA reserves the right to review and approve or reject any background sampling results. These results shall be submitted to Greg Taylor, Ohio EPA, NEDO, and Paul Vandermeer, Ohio EPA, CO, within five (5) business days of receipt by LTV Steel. The minimum number of borings required for determination of background is sixteen (16) with samples taken from each soil horizon of concern (i.e., if three soil horizons are of concern this would be  $3 \times 16 = 48$  total samples). If soils are found to be contaminated with listed K062 hazardous waste and constituents then soils with concentrations above background (or Ohio Farm Soils concentrations) shall be managed as hazardous waste.

1807U

Kearney/Centaur Division  
A.T. Kearney, Inc.  
P.O. Box 1438  
225 Reinekers Lane  
Alexandria, Virginia 22313  
703 683 7932

Management  
Consultants

**ATKEARNEY**

March 30, 1989

Mr. Bernie Orenstein  
Regional Project Officer  
U.S. Environmental Protection Agency  
Region V  
230 South Dearborn Street  
Chicago, IL 60604

Reference: EPA Contract No. 68-01-7374; Work Assignment No.  
R25-03-27; Closure Reviews for Six Ohio Facilities; Task  
03; Closure Review for LTV Steel Company, Inc.; Cleveland,  
Ohio; EPA I.D. No. OHD004218673; Final Deliverable

Dear Mr. Orenstein:

Enclosed please find the Completeness/Technical Reviews of the closure plans for the 84-Inch Pickle Line Storage Tank Area, the 60-Inch Electroplating SPL Storage Tank Area, and the Degreaser Sludge Container, at the LTV Steel Company, Inc., Cleveland Works East. These reviews were conducted using the EPA Protocol for Evaluating Interim Status Closure/Post-Closure Plans (revised December 1988) to determine compliance with EPA's 40 CFR 265 regulations. The project deliverables include the following:

- Consolidated General Deficiency comments covering the three plans.
- Specific Notice of Deficiency comments for each of the three plans.
- The completed checklists from U.S. EPA's Protocol for Evaluating Interim Status Closure/Post-Closure Plans for each of the three plans.

The documents used as information sources in performing these reviews are as follows:

- Closure Plan for the 84-Inch Pickle Line Storage Tank Area, Burgess & Niple, Limited, June 1988. This plan covers closure of two spent pickle liquor storage tanks and associated secondary containment structures.

Mr. Bernie Orenstein  
March 29, 1989  
Page Two

- Closure Plan for the 60-Inch Electroplate SPL Storage Tank Area, Burgess & Niple, Limited, June 1988. This plan covers closure of two spent pickle liquor storage tanks and associated secondary containment structures.
- Closure Plan for Degreaser Sludge Container, Burgess & Niple, Limited, June 1988. This plan covers closure of a perchloroethylene sludge container (dumpster) and gravel pad.

As you requested, we evaluated the closure plans for compliance with 40 CFR 265 Subparts G and H. The closure plans were found to be deficient in several areas.

#### Background for the Closing Units

The LTV Steel Company, Inc., Cleveland Works East is a 750 acre steel mill which produces flat rolled steel. Manufacturing facilities at the plant include hot and cold mills, blast furnaces, coke plants, basic oxygen furnaces, hydrochloric acid pickling, and associated finishing and shipping facilities.

LTV has operated at least the following hazardous waste management units at the Cleveland Works East:

- Two tanks for storing spent pickle liquor (SPL) from the 84-Inch Pickle Line.
- Two tanks for storing SPL from the 60-Inch Electroplate Line.
- One degreaser sludge container for storing sludge from a perchloroethylene (tetrachloroethylene) vapor degreaser.

The wastes managed in these units are classified as K062 (spent pickle liquor) and F001 (tetrachloroethylene degreaser sludge).

LTV intends to close these units and convert them to less than 90 day storage. Major deficiencies and issues found in the closure plans for these units are as follows:

- The plans do not provide adequate closure performance standards. They do not provide rationales and supporting documentation (historical records or waste analyses) for the chemical parameters identified for demonstrating closure performance.
- The closure plans do not specify how the hazardous waste inventory in the units will be removed and disposed.

Mr. Bernie Orenstein  
March 29, 1989  
Page Three

- The plans do not contain adequate detail on procedures for decontamination of the units and associated secondary containment structures or pads, and for removal of hazardous waste residues including potentially contaminated soils.
- The closure plans do not provide procedures for decontamination and/or disposal of equipment and structures to be used to accomplish closure.
- The closure plans do not include evidence of financial assurance and documentation of liability coverage.

The deficiency comments specifically identify the pertinent regulations with which the plans do not comply, and require LTV to submit new or revised plans and additional information and documentation.

Please feel free to call me at (703) 548-4700 if you have any questions.

Sincerely,



Arthur Glazer  
Technical Director

Enclosures

cc: F. Norling, EPA Region V  
E. Kitchen, Ohio EPA  
J. Levin  
D. Beane  
W. Rohrer, DPRA



COMPLETENESS/TECHNICAL REVIEW  
OF  
INTERIM STATUS CLOSURE PLAN

LTV STEEL COMPANY, INC.  
CLEVELAND WORKS EAST  
CLEVELAND, OHIO

EPA I.D. No. OHD004218673

Prepared for:

U.S. Environmental Protection Agency  
Region V  
230 South Dearborn Street  
Chicago, Illinois 60604

Prepared by:

A.T. Kearney, Inc.  
225 Reinekers Lane  
Alexandria, Virginia 22314

In response to:

EPA Contract No. 68-01-7374  
Work Assignment No. R25-03-27

March 1989

COMPLETENESS/TECHNICAL REVIEW  
INTERIM STATUS CLOSURE PLANS  
LTV STEEL COMPANY, INC.  
CLEVELAND WORKS EAST  
CLEVELAND, OHIO

EPA I.D. No. OHD004218673

GENERAL DEFICIENCY COMMENTS

This interim status closure plan review covers closure plans submitted for three interim status waste management areas at the LTV Steel Company, Inc., Cleveland Works East. The three partial closure plans covered by this review are:

- Closure Plan for the 84-Inch Pickle Line Storage Tank Area, Burgess & Niple, Limited, June 1988. This plan covers closure of two spent pickle liquor storage tanks and associated secondary containment structures.
- Closure Plan for the 60-Inch Electroplate SPL Storage Tank Area, Burgess & Niple, Limited, June 1988. This plan covers closure of two spent pickle liquor storage tanks and associated secondary containment structures.
- Closure Plan for Degreaser Sludge Container, Burgess & Niple, June 1988. This plan covers closure of a perchloroethylene sludge container (dumpster) and container pad.

Each plan discusses closure and conversion to less than 90 days storage use of the respective units. The plans are identical in format and similar in level of detail. As a result, the plans have similar major deficiencies, which are summarized as follows:

- The plans do not provide adequate closure performance standards. They do not provide rationales and supporting documentation (historical records or waste analyses) for the chemical parameters identified for demonstrating closure performance.
- The closure plans do not specify how the hazardous waste inventory in the units will be removed and disposed.
- The plans do not contain adequate detail on procedures for decontamination of the units and associated secondary containment structures or pads, and for removal of hazardous waste residues.
- The closure plans do not provide procedures for decontamination and/or disposal of equipment and structures to be used to accomplish closure.
- The closure plans do not include evidence of financial assurance and documentation of liability coverage.

The following comments identify in detail deficiencies associated with each of the closure plans. A separate list of deficiency comments and review checklist is provided for each of the three plans.

Completeness/Technical Review  
Interim Status Closure Plan  
84-Inch Pickle Line Storage Tank Area  
LTV Steel Company, Inc.  
Cleveland Works East  
Cleveland, Ohio

EPA I.D. No. OHD004218673

SPECIFIC DEFICIENCY COMMENTS

I. General Closure Requirements

I.A. Closure Performance Standard [40 CFR 265.111]

LTV's proposed closure performance standard for the 84-Inch Pickle Line Storage Tank Area (the SPL Tank Area) is deficient in several areas.

First, LTV proposes cleanup levels for the SPL Tank Area for pH, total lead and total chrome, without providing a rationale for selecting only these waste characteristics and hazardous constituents. LTV should provide a rationale for the proposed parameters for the performance standard. This rationale should include:

- The basis for the listing of spent pickle liquor as a hazardous waste (e.g., high chromium and lead content, and low pH).
- Historical records documenting whether or not other hazardous wastes or Appendix VIII hazardous constituents have been managed in the unit over its operating life, and identifying these wastes and constituents, if any.
- An assessment of the specific characteristics of LTV's spent pickle liquor, including the absence or presence of other hazardous constituents and the basis for the assessment (e.g., previous waste analyses of LTV spent pickle liquor).

If other hazardous wastes or hazardous constituents have been managed in the ESPL Tank Area, the closure performance standard must be revised to provide criteria (e.g., hazardous constituent concentration levels) for determining the extent of decontamination required for these wastes or constituents. These performance standards must be based on Ohio EPA's "Closure Plan Review Guidance", February 8, 1988, and "Rinsate Clean Standards for RCRA Closures", October 6, 1988.

Second, LTV proposes to use as cleanup levels for containment facilities and sumps rinsate concentrations of 5.0 mg/l total chromium and 5.0 mg/l total lead. These concentrations are 100 times the applicable Maximum Contaminant Levels (MCLs) for these contaminants. Ohio policy requires use of MCLs or Maximum Contaminant Level Goals (MCLGs) as cleanup standards. Revise the closure plan to provide for a closure standard for containment facilities and sumps equal to or less than the applicable MCL or MCLG, in accordance with the two Ohio EPA guidances named above.

Third, the closure plan does not provide a closure performance standard for decontaminating and closing the two spent pickle liquor tanks in the SPL Tank Area. As part of the conversion of these tanks to less than 90 day storage service, LTV must remove all waste from the tanks, decontaminate the tanks, and certify closure of the tanks. The tanks cannot be used for storing spent pickle liquor on a less than 90 day basis prior to receipt and approval of the closure certification by the State. LTV must revise the closure plan to provide a closure performance standard for the two spent pickle liquor tanks.

Finally, LTV has proposed a clean level for demonstrating that soils at the SPL Tank Area have not been contaminated by hazardous wastes or constituents from the tank area. Generally, soil sampling and analysis plans are not required for the closure of tanks with secondary containment, unless there has been (or is reason to suspect there may have been) a release of hazardous waste or constituents outside the secondary containment area, or the integrity of the secondary containment area is impaired (e.g., due to gaps, cracks, or decomposition of the secondary containment structure). LTV must describe the condition of the secondary containment structure in the closure plan, identifying and describing any cracks, gaps, or other possible avenues for release from the containment structure. Additionally, LTV must identify any known releases of SPL from the secondary containment area, or tank system components outside the secondary containment area. If avenues of release from the containment are exist, or there have been known releases of SPL, LTV must provide a closure performance standard for removal or decontamination of potentially contaminated soils. The clean levels proposed by LTV are appropriate performance standards for the constituents discussed; however, additional clean levels should be provided, as discussed above, for additional Appendix VIII constituents identified as having been managed in the SPL Tank Area if any. These levels should be based on the referenced Ohio EPA guidances.

#### I.B. Content of Closure Plan

##### I.B.-1. Description of Partial and/or Final Closure [40 CFR 265.112(b)]

The closure plan must specify whether closure of the SPL Tank Area is a partial or final hazardous waste management facility closure. The closure plan indicates that LTV operates several spent pickle liquor storage units at the facility; therefore, it appears that closure of the SPL Tank Area is a partial closure. The closure plan must identify all hazardous waste management units referenced in the Part A application. Revise the closure plan to include a list of all hazardous waste management units at the facility and provide a brief description of the proposed closures of the other units listed and of any relationships between closures activities at the SPL Storage Area and these other units. Specify that the closure of the SPL Tank area is a partial closure of the facility.

##### I.B-4. Detailed Description of Removal of Hazardous Waste Inventory [40 CFR 265.112(b)(3) and 265.114]

The closure plan contains no description of procedures for removal, treatment, and disposal of the SPL Tank Area waste inventory. During closure, wastes in the SPL Tanks at the beginning of closure will have to be removed and disposed in order to decontaminate the tanks. Use of the tanks for less than 90 day storage cannot begin until all wastes have been removed; the tanks, ancillary equipment and secondary containment have been decontaminated; the closure has been certified; and the certification has been approved by the State. Revise the closure plan to identify the amount of waste in inventory at the SPL Tank Area at closure and describe how hazardous wastes in storage will be removed, including a discussion of the following:

- Waste removal from the tanks and associated equipment (pumps, pipes), including spent pickle liquor and any accumulated sludges.
- A description of any treatment on-site prior to shipment, if appropriate.
- Waste transport, including an estimate of the amount of waste to be sent off-site, if any.
- The method of treatment or disposal of the final inventory, including both spent pickle liquor and any sludges or other tank residues.
- The location at which treatment or disposal will be performed.

K062 wastes are prohibited from land disposal (see 53 FR 31138, August 17, 1988). LTV must specify how the K062 waste will be managed in compliance with the land disposal restrictions.

I.B-5. Identification of and Type of Off-Site Hazardous Waste Management Units [40 CFR 265.112(b)(3)]

If LTV intends to dispose of the waste inventory in the SPL Tanks off-site, LTV must revise the closure plan to specify how the wastes will be managed off-site. Also, state in the closure plan that once LTV has selected an off-site facility, LTV will submit to the Regional Administrator the following information, prior to waste shipment:

- The name and EPA I.D. number of the facility.
- The operational status of the facility (i.e., interim status or permitted).
- An estimate of the approximate distance to the final treatment or disposal facility.
- A description of the treatment or disposal methods to be used at the final treatment or disposal facility.

I.B-6. Decontamination and Removal of Hazardous Waste Residues [40 CFR 265.112(b)(4) and 265.114]

LTV's discussion of decontamination procedures is inadequate for several reasons, as discussed below.

Criteria for Determining the Extent of Decontamination Necessary

The plan must provide criteria for determining the extent of decontamination necessary for all contaminated equipment, structures, and soils. The closure plan does not provide adequate or correct criteria for determining the extent of decontamination required for the secondary containment area and tanks. Comment I.A. provides a detailed discussion of the revisions LTV must make to the plan to provide adequate criteria for determining the extent of decontamination necessary.



### Detailed Description of Decontamination Steps

The closure plan does not provide an adequate description of the decontamination steps (sequence of activities) to be followed in performing the closure. The plan must be revised to provide a description of the decontamination steps which will be followed. This description must describe the sequencing of decontamination activities for the tanks and secondary containment area, in order to demonstrate that the closure process will be carried out in a manner which minimizes the spread of any existing contamination to uncontaminated areas and the potential release of hazardous waste or constituents to the environment.

### Procedures for Cleaning Equipment and Structures and Removing Contaminated Soils

The closure plan does not adequately describe the procedures that will be followed in cleaning equipment and structures and removing contaminated soils.

First, the plan does not address decontamination procedures for the tanks and any associated equipment (pumps, pipes) in the SPL Tank Area. As previously discussed, these tanks will need to be removed from service, decontaminated, and certified closed before they can be used for less than 90 days storage. Revise the plan to provide procedures for decontaminating the tanks. Include:

- A description of methods to be used to rinse or clean the tanks.
- A discussion of the cleaners, detergents, or solvents to be used and the reason for their selection.
- An estimate of the number of rinses to be used and the volume of cleaning solutions that will be generated.
- A description of how the solutions will be treated or disposed.
- A description of health and safety procedures to be followed when performing tank decontamination.

Second, the plan is not sufficiently specific in providing procedures for decontamination of the secondary containment area. Prior to rinsing the area, the secondary containment structure should be inspected to determine if there are any cracks or gaps through which decontamination solutions may be released, and to determine if there is visual evidence of waste leakage or spillage into the containment area. If cracks or gaps exist, they should be sealed prior to rinsing.

The closure plan must provide detailed procedures for conducting the decontamination of the secondary containment area, including procedures for removing rinsewaters and cleaning solutions. The plan must provide a rationale for use of the particular cleaning agents proposed for use. Additionally, the plan must provide an estimate of the volume of rinsate that will be generated through decontamination, and describe how and where the rinsate will be treated or disposed. Revise the plan to provide detailed procedures for decontaminating the secondary containment area at the SPL Tank Area.

If the rinsate from the tank and secondary containment area decontamination is to be disposed of off-site, LTV must include in the closure plan the identity, EPA I.D. number, operating status, and location of the off-site facility to be used for treatment and/or disposal, or a statement that this information will be provided to the Regional Administrator following selection of the facility by LTV and prior to shipment of the waste off-site.

Third, LTV's closure plan proposes a soil boring program to determine if SPL has been released to soils. Soil sampling programs are required for closures of units where there is evidence of or potential for past or current releases of wastes to the environment; at such facilities, the sampling program should be designed to identify the presence of contaminated soils, and the horizontal and vertical extent of contamination.

The presence of an impermeable secondary containment system at the SPL Tank Area would generally obviate the need for a soil sampling program unless there is evidence that a release to soils has occurred or is likely to have occurred. This evidence would include:

- History of operating the tanks prior to construction of secondary containment.
- Visual evidence of spills or leaks outside the secondary containment area.
- Existence of cracks or gaps in the secondary containment structure.
- Operating records indicating release of wastes from secondary containment area through overflow or spills and leaks outside the secondary containment area.

If evidence exists that releases may have occurred, the sampling program must be designed to identify the contamination and delineate its vertical and horizontal extent. The borings proposed by LTV are located outside the secondary containment area and would be unlikely to identify any soils contaminated by leaks through the base of the containment area; their location will only be useful to identify spills occurring due to overflows of the containment or leaks occurring in piping or equipment outside of the containment area.

Revise the closure plan to provide an evaluation of the potential for past or current releases of SPL. Include:

- A detailed description of the secondary containment area, including the size and location of any gaps, cracks, or decomposed brick or concrete.
- Information regarding any spills that may have occurred at the unit, including sources of information. This information may include historical operating records, interviews, or visual evidence of leaks or spills.

If there is evidence indicating that a release may have occurred, such as gaps or cracks in the containment, historical records of spills outside the secondary containment area, or visual evidence of spills to soils, revise the soil sampling plan to confirm the presence or absence of contamination. These revisions should include:

- Location of soil borings in visually contaminated areas, at cracks or gaps in the secondary containment, or at locations where spills have been observed in the past.
- Sampling depths for the borings. Samples should be taken at one-foot intervals within the first three to five feet of the soil surface, as specified in the sampling program provided by LTV in the existing plan.
- Expanding (if necessary) the list of parameters for which soils will be analyzed to include, in addition to total chrome, total lead, and pH, any additional Appendix VIII constituents included in the performance standard in response to comment I.A.

Provide a statement that, if soil contamination is found in excess of the clean criteria in the closure performance standard, LTV will revise the closure plan to include a plan for removal or decontamination of the contaminated soils and for sampling and analysis to demonstrate that all contaminated soils have been removed or decontaminated.

#### Methods for Sampling and Testing to Demonstrate the Success of Decontamination

The closure plan must specify the methods for sampling and testing to be used to demonstrate the success of decontamination or removal of the tanks and secondary containment structures. LTV has provided adequate methods for sampling rinsate from the secondary containment; however, the proposed clean levels are not appropriate for the constituents identified. LTV has not provided methods for sampling and analyzing rinsate from the tanks and has not provided clean levels for the rinsate. Revise the closure plan to include methods for sampling and analysis of rinsate from the tanks. Provide clean levels for the tank rinsate and for the secondary containment rinsate which cover total chromium, total lead, and pH, and all additional Appendix VIII constituents (if any) included in the closure performance standard in response to comment I.A. above. These levels must be based on Ohio EPA rinsate clean standards specified in the memorandum, "Rinsate Clean Standards for RCRA Closures", October 6, 1988, which are as follows:

- Public drinking water maximum contaminant levels (MCLs) for hazardous waste constituents as promulgated in 40 CFR 141.11 and OAC 3745-81-11 for inorganics and 40 CFR 141.12 and OAC 3745-81-12 for organics.
- If MCLs are not available for the constituent, then the maximum contaminant level goal (MCLG) as promulgated in 40 CFR 141.30.
- If neither an MCL or MCLG is available, 1 mg/l will be the level.

#### I.B-8. Schedule for Closure of Each Unit and Final Facility Closure [40 CFR 265.112(b)(6) and (7)]

The closure schedule must identify the expected year of closure of the unit. Additionally, it must provide sufficient detail to track closure of the SPL Tank Area. Revise the plan to provide the expected year of closure of the SPL Tank Area. Additionally, revise the schedule provided for closure of the SPL Tank Area to include the following:

- Removal of waste inventory.
- Tank decontamination.
- Secondary containment area decontamination.
- Treatment and/or disposal of contaminated rinsates.
- Additional detail on sequencing of sampling and analysis of rinsate and soils.
- Critical points during closure when an independent, registered professional engineer (PE) or the PE's representative will be present.

I.B-9. Amendment of Closure Plan [40 CFR 265.112(c)]

Include in the closure plan a statement that if an unexpected event occurs during closure which requires modification of the closure plan LTV will submit an amended closure plan to the EPA Regional Administrator no later than 30 days after the unexpected event occurs.

I.B-10. Notice of Partial and Final Closure [40 CFR 265.112(d)(1)]

The closure plan must be amended to indicate that the Administrator will be notified in writing at least 45 days before the date on which LTV expects to begin closure, if this closure is the final closure or is part of the final closure of this facility.

I.B-11. Schedule for Beginning Closure [40 CFR 265.112(d)(2)]

The revised closure plan must state that closure of the SPL Tank Area will begin within 30 days after receipt of the final volume of hazardous waste.

I.B-12. Wastes Treated, Removed or Disposed of Within 90 Days and Extensions of Time Periods [40 CFR 265.113(a)]

The revised closure plan must state that all hazardous wastes (i.e., waste inventory, rinsates) will be removed within 90 days after the receipt of the final volume of hazardous waste, or within 90 days of approval of the closure plan, whichever is later.

I.B-14. Time Frames for Demonstrations for Extensions [40 CFR 265.113(c)]

Revise the closure plan to include a statement to the effect that LTV will submit a request for extension of the closure period to the Regional Administrator at least 30 days prior to the end of the initial 180 day closure period, if it appears the actual closure time will exceed the 180 day closure period.

I.B-15. Disposal or Decontamination of Equipment, Structures and Soils [40 CFR 265.114]

The plan provides no procedures for cleaning equipment used in decontaminating the tanks and secondary containment area. Revise the plan to:

- List all equipment which will be used during decontamination.
- Provide procedures for cleaning equipment.

- Provide procedures to prevent contamination of clean areas.
- Identify where this decontamination will occur and provide a layout of the decontamination zone.
- Describe how all washwaters, rinsate, etc., will be collected and managed. If rinsate will be treated or disposed off-site, provide the name, EPA I.D. number, location, and operational status of the facility where they will be managed or state that this information will be provided to the Regional Administrator prior to shipment of these materials. Note that K062 containing wastewaters are subject to the land disposal restrictions, 40 CFR 268.
- Provide an estimate of the volume of wash solutions and decontamination solids (if any).

Information concerning decontamination procedures may be found in the following references: Guide for Decontaminating Buildings, Structures and Equipment at Superfund Sites, U.S. EPA, 1985, and Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, Chapter 10, NIOSH, 1985.

#### I.C. Certification of Closure

##### I.C-1. Certification of Closure [40 CFR 265.115]

The revised closure plan must include the following statement concerning certification of closure:

The certification will be signed by both the owner/operator and the independent registered professional engineer and will be submitted to the Regional Administrator by registered mail. The owner's/operator's and independent registered professional engineer's certifications of closure will follow the signature requirements found in Ohio Administrative Code (OAC) 3745-50-42. The owner's/operator's certification statement will follow the exact wording found in OAC 3745-50-42(D). Documentation supporting the independent registered professional engineer's certification will be furnished to the Regional Administrator upon request until the Regional Administrator releases the owner/operator from the financial assurance requirements for closure under 40 CFR 265.143(h).

##### I.D-1. Closure Cost Estimate [40 CFR 265.142]

The closure plan must include a detailed written cost estimate, in current dollars, of the cost of closing the SPL Tank Area in accordance with the requirements in 40 CFR 265.111 through 265.115. The closure cost estimate must be based on the costs of hiring a third party to close the facility.

LTV has provided a closure cost estimate in 1989 dollars. However, the estimate is not sufficiently detailed and must be revised to provide the additional detail described below and to include any revisions to the closure plan made in response to this NOD. Additionally, the estimate must be made for the cost of having a third party perform closure, and must include labor costs, as well as material and transportation costs.



The estimate to be provided with the revised closure plan must be a detailed line item estimate. The cost estimate must include, but not be limited to, the following additional items as appropriate:

- Removal of waste inventory in compliance with 40 CFR 268.
- Transportation and disposition of wastes.
- Waste analyses.
- Protective clothing and equipment.
- Decontamination of the tanks, ancillary equipment, and containment area.
- Decontamination of equipment used in decontaminating the tanks and containment area.
- Removal of hazardous waste residues.
- Transportation and disposition of hazardous waste residues.
- Soil sampling, if the integrity of the containment area is impaired or other evidence of a release exists.
- Shipping and analysis of soil samples for all parameters required based on the performance standard.
- Sampling of rinsate from the containment area and equipment decontamination for determination of the success of decontamination.
- Shipping and analysis of rinsate samples.
- Labor costs.

Include separate estimates for labor, transportation, and disposal fees. Specify the basis for all cost estimates (i.e., contractor estimate, published estimates, past closure experience). Support each line estimate with unit costs for calculations.

**I.D-2. Adjustments for Inflation [40 CFR 265.142(b)]**

Revise the closure plan to indicate that the cost estimates for closure will be updated annually to reflect inflation. Specify in the closure plan that LTV will adjust the closure cost estimate: (1) within 30 days after closing LTV's fiscal year if the corporation is using the financial test or corporate guarantee; or (2) within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 40 CFR 265.143. State that LTV will use the inflation factor published in the U.S. Department of Commerce's Survey of Current Business to make this adjustment.

**I.D-3. Revisions to Closure Cost Estimate [40 CFR 265.142(c)]**

The closure plan must be revised to state that if a revision is made to the closure plan that increases the cost of the closure, the closure cost estimate will be revised no later than 30 days after the Administrator has approved the request to modify the closure plan.

I.E. Financial Assurance for Closure [40 CFR 265.143]

Provide a copy of the established financial assurance mechanism for facility closure. The mechanism must be one of the following:

- Closure trust fund [40 CFR 265.143(a)].
- Surety bond guaranteeing payment into a closure trust fund [40 CFR 265.143(b)].
- Closure letter of credit [40 CFR 265.143(c)].
- Closure insurance [40 CFR 265.143(d)].
- Financial test and corporate guarantee [40 CFR 265.143(e)].
- Multiple financial mechanisms [40 CFR 265.143(f)].
- Financial mechanism for multiple facilities [40 CFR 265.143(g)].

I.F. Liability Coverage [40 CFR 265.147]

I.F-1. Sudden Accidental Occurrences [40 CFR 265.147(a)]

The owner/operator is required to maintain liability coverage for sudden accidental occurrences throughout the closure period until the Regional Administrator receives certification that closure has been completed in accordance with the approved closure plan and the Regional Administrator notifies the owner/operator in writing they are no longer required to maintain liability coverage. Liability coverage must be maintained for sudden accidental occurrences in the amount of at least one million dollars per occurrence with an annual aggregate of at least two million dollars, exclusive of legal defense costs.

Provide documentation of compliance with applicable liability requirements for sudden accidental occurrences. Liability coverage may be demonstrated in one of the following ways (pursuant to 40 CFR 265.147, Final Rule, September 1, 1988):

- Liability insurance [40 CFR 265.147(a)(1)].
- Financial test or corporate guarantee [40 CFR 265.147(a)(2)].
- Letter of credit [40 CFR 265.147(a)(3)].
- Surety bond [40 CFR 265.147(a)(4)].
- Trust fund [40 CFR 265.147(a)(5)].
- Combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund [40 CFR 265.147(a)(6)].

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number QHD004218673

INTERIM STATUS CLOSURE AND POST-CLOSURE PLANS  
 [40 CFR 265 - Revised December 1988]

|  | <u>Provided</u><br><u>(Y/N) or NA</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------------|---------------------------------|---------------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS</u>   |                                       |                                 |                                 |                                |
| A. <u>Closure Performance Standards</u><br>[40 CFR 265.111]  | <u>Y</u>                              | <u>N</u>                        | <u>p. 7</u>                     | <u>See comment I.A.</u>        |
| B. <u>Content of Closure Plan</u>  |                                       |                                 |                                 |                                |
| B-1. Description of partial and/or<br>final closure of the facility<br>[40 CFR 265.112(b)(2)]                    | <u>Y</u>                              | <u>N</u>                        | <u>p. 7</u>                     | <u>See comment I.B-1.</u>      |
| B-2. Identification of maximum<br>extent of operations<br>[40 CFR 265.112(b)(2)]                                 | <u>Y</u>                              | <u>Y</u>                        | <u>pp. 3,5&amp;6</u>            | <u>---</u>                     |
| B-3. Estimate of maximum inventory<br>of hazardous waste<br>[40 CFR 265.112(b)(3)]                               | <u>Y</u>                              | <u>Y</u>                        | <u>p. 3</u>                     | <u>---</u>                     |
| B-4. Detailed description of<br>removal of hazardous waste<br>inventory<br>[40 CFR 265.112(b)(3) and<br>265.114] | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-4</u>       |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number QHD004218673

|       |   | <u>Provided</u><br><u>(Y/N) or NA)</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|-------|---|--|---------------------------------|---------------------------------|--------------------------------|
| B-5.  | Identification of and type of<br>off-site hazardous waste<br>management unit(s)<br>[40 CFR 265.112(b)(3)] | <u>N</u>                               | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-5.</u>      |
| B-6.  | Decontamination and removal of<br>hazardous waste residues<br>[40 CFR 265.112(b)(4) and<br>265.114]       | <u>Y</u>                               | <u>N</u>                        | <u>p. 8</u>                     | <u>See comment I.B-6.</u>      |
| B-7.  | Detailed description of other<br>activities necessary for closure<br>[40 CFR 265.112(b)(5)]               | <u>N/A</u>                             | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| B-8.  | Schedule for closure of each<br>unit and final facility closure<br>[40 CFR 265.112(b)(6) and (7)]*        | <u>Y</u>                               | <u>N</u>                        | <u>p. 15</u>                    | <u>See comment I.B-8.</u>      |
| B-9.  | Amendment of closure plan<br>[40 CFR 265.112(c)]*   | <u>N</u>                               | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-9.</u>      |
| B-10. | Notification of partial and<br>final closure<br>[40 CFR 265.112(d)(1)]                                    | <u>N</u>                               | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-10.</u>     |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number OHD004218673

|       |  | <u>Provided<br/>(Y/N) or NA)</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|-------|--|----------------------------------|---------------------------|---------------------------|--------------------------------|
| B-11. | Schedule for beginning closure<br>[40 CFR 265.112(d)(2)]   | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-11.</u>     |
| B-12. | Wastes treated, removed or<br>disposed of within 90 days<br>and extensions of time periods<br>[40 CFR 265.113(a)]* | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-12.</u>     |
| B-13. | Closure completed within<br>180 days and extensions<br>of time periods<br>[40 CFR 265.113(b)]*                     | <u>Y</u>                         | <u>Y</u>                  | <u>p. 15</u>              | <u>---</u>                     |
| B-14. | Timeframes for demonstrations<br>for extensions [40 CFR 265.113(c)]  | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-14.</u>     |
| B-15. | Disposal or decontamination of<br>equipment, structures, and soils<br>[40 CFR 265.114]                             | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-15.</u>     |
| C.    | <u>Certification of Closure<br/>and Survey Plat</u>  |                                  |                           |                           |                                |
| C-1.  | Certification of closure<br>[40 CFR 265.115]*  | <u>Y</u>                         | <u>N</u>                  | <u>p. 15</u>              | <u>See comment C-1.</u>        |
| C-2.  | Survey plat<br>[40 CFR 265.116]*   | <u>N/A</u>                       | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number QHD004218673

|      | <u>Provided</u><br><u>(Y/N) or NA</u>                                  | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|------|--|---------------------------------|---------------------------------|--------------------------------|
| I.   | <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>                           |                                 |                                 |                                |
| D.   | <u>Closure Cost Estimate*</u>  |                                 |                                 |                                |
| D-1. | Cost estimate when closure<br>is most expensive<br>[40 CFR 265.142(a)] | <u>Y</u>                        | <u>N</u>                        | <u>p. 16</u>                   |
| D-2. | Adjustments for inflation<br>[40 CFR 265.142(b)]                       | <u>N</u>                        | <u>-</u>                        | <u>See comment I.D-2.</u>      |
| D-3. | Revisions to closure cost<br>estimates [40 CFR 265.142(c)]             | <u>N</u>                        | <u>-</u>                        | <u>See comment I.D-3.</u>      |



Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number OHD004218673

|   | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|---|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>                                       |                                 |                           |                           |                                |
| E. <u>Financial Assurance for<br/>Closure [40 CFR 265.143]</u>                        |                                 |                           |                           |                                |
| E-1. Closure trust fund<br>[40 CFR 265.143(a)]  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-2. Surety bond guaranteeing<br>payment to closure trust fund<br>[40 CFR 265.143(b)] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-3. Closure letter of credit<br>[40 CFR 265.143(c)]                                  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-4. Closure insurance<br>[40 CFR 265.143(d)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-5. Financial test and<br>corporate guarantee<br>[40 CFR 265.143(e)]                 | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-6. Multiple financial mechanisms<br>[40 CFR 265.143(f)]                             | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-7. Financial mechanisms for<br>multiple facilities<br>[40 CFR 265.143(g)]           | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number 0HD004218673

|  | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>  |                                 |                           |                           |                                |
| F. <u>Liability Coverage</u>   |                                 |                           |                           |                                |
| F-1. Sudden accidental occurrences<br>[40 CFR 265.147(a)]                                      | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Endorsement or certification<br>[40 CFR 265.147(a)(1)]                                       | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Financial test or corporate<br>guarantee for liability<br>coverage<br>[40 CFR 265.147(a)(2)] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Letter of credit<br>[40 CFR 265.147(a)(3)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Surety bond<br>[40 CFR 265.147(a)(4)]  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Trust fund<br>[40 CFR 265.147(a)(5)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Use of multiple financial<br>mechanisms<br>[40 CFR 265.147(a)(6)]                            | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number QHD004218673

|  | <u>Provided</u><br><u>(Y/N) or NA)</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|--|--|---------------------------------|---------------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>  |  |                                 |                                 |                                |
| F-2. Non-sudden accidental occurrences<br>[40 CFR 265.147(b)]                                  |  |                                 |                                 |                                |
| • Endorsement or certification<br>[40 CFR 265.147(b)(1)]                                       | <u>N/A</u>                             | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| • Financial test or corporate<br>guarantee for liability<br>coverage<br>[40 CFR 265.147(b)(2)] | <u>N/A</u>                             | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| • Letter of credit<br>[40 CFR 265.147(b)(3)]   | <u>N/A</u>                             | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| • Surety bond<br>[40 CFR 265.147(b)(4)]  | <u>N/A</u>                             | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| • Trust fund<br>[40 CFR 265.147(b)(5)]   | <u>N/A</u>                             | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| • Use of multiple financial<br>mechanisms<br>[40 CFR 265.147(b)(6)]                            | <u>N/A</u>                             | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number 0HD004218673

|      | Provided<br>(Y/N) or NA)  | Adequate<br>(Y/N) | Exhibits<br>(Y/N)  | References and Comments                       |
|------|---|-------------------|--------------------|---|
| III. | <u>CLOSURE OF TANK SYSTEMS</u>  |                   |                    |   |
| A.   | <u>Closure Performance Standards</u><br><u>for the Tank System</u><br>[40 CFR 265.111]<br>(This item is addressed under Section I-A.) |                   |                    |   |
| B.   | <u>Content of Closure Plan</u>  |                   |                    |   |
| B-1. | Detailed description of<br>how the tank system will<br>be closed<br>[40 CFR 265.112(b)(1) and<br>265.197(a)]                          |                   |                    |   |
|      | <u>Y</u>  | <u>N</u>          | <u>pp. 7&amp;8</u> | <u>See comments I.B-4, 5, 6, 7, &amp; 15.</u> |
| B-2. | Identification of maximum<br>extent of operation of<br>the tank system<br>[40 CFR 265.112(b)(2) and<br>265.197(a)]                    |                   |                    |   |
|      | <u>Y</u>  | <u>Y</u>          | <u>pp. 1&amp;3</u> | <u>---</u>                                    |
| B-3. | Estimate of maximum inventory<br>of hazardous waste ever in the<br>tank system<br>[40 CFR 265.112(b)(3) and<br>265.197(a)]            |                   |                    |   |
|      | <u>Y</u>  | <u>Y</u>          | <u>p. 3</u>        | <u>---</u>                                    |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number 0HD004218673

|      |   | <u>Provided</u><br><u>(Y/N) or NA</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u>      |
|------|---|---------------------------------------|---------------------------------|---------------------------------|-------------------------------------|
| B-4. | Detailed description of removal of hazardous waste inventory<br>[40 CFR 265.112(b)(3), 265.114, and 265.197(a)]                     | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-4.</u>           |
| B-5. | Identification of and type of off-site hazardous waste management unit(s)<br>[40 CFR 265.112(b)(3) and 265.197(a)]                  | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-5.</u>           |
| B-6. | Criteria for determining the extent of decontamination necessary<br>[40 CFR 265.112(b)(4), 265.114, and 265.197(a)]                 | <u>Y</u>                              | <u>N</u>                        | <u>p. 7</u>                     | <u>See comments I.A. and I.B-6.</u> |
| B-7. | Detailed description of decontamination steps<br>[40 CFR 265.112(b)(4), 265.114, and 265.197(a)]*                                   | <u>Y</u>                              | <u>N</u>                        | <u>p. 8</u>                     | <u>See comment I.B-6.</u>           |
| B-8. | Procedures for cleaning equipment and structures and removing contaminated soils<br>[40 CFR 265.112(b)(4), 265.114 and 265.197(a)]* | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-15.</u>          |

Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number 0HD004218673

|       |  | <u>Provided</u><br><u>(Y/N) or NA</u>        | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|-------|--|--|---------------------------------|---------------------------------|--------------------------------|
| B-9.  | Detailed description of removal of waste residues [40 CFR 265.112(b)(4), 265.114 and 265.197(a)]*  | <u>Y</u>                                     | <u>N</u>                        | <u>p. 8</u>                     | <u>See comment I-B.6.</u>      |
| B-10. | Methods for sampling and testing to demonstrate success of decontamination [40 CFR 265.112(b)(4), 265.114, and 265.197(a)]*                  | <u>Y</u>                                     | <u>Y</u>                        | <u>pp. 9-13</u>                 | <u>---</u>                     |
| B-11. | Detailed description of other necessary activities [40 CFR 265.112(b)(5)]  | <u>Y</u>                                     | <u>N</u>                        | <u>p. 10-13</u>                 | <u>See comment I-B-7.</u>      |
| B-12. | Contingent plan for closing as a landfill (required for tank systems requiring, but not having secondary containment) [40 CFR 265.197(c)(1)] | <u>N/A</u>                                   | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| B-13. | Detailed schedule for closure of the tank system [40 CFR 265.112(b)(6)]  | (This item is addressed under Section I-B-8) |                                 |                                 |                                |



Facility Name LTV Steel Company - Clvd. Works East  
84 Inch Pickle Line Storage Tank Area  
 I.D. Number OHD004218673

| <u>Provided</u><br><u>(Y/N) or NA)</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------|---------------------------------|--------------------------------|
|--|---------------------------------|---------------------------------|--------------------------------|

C. Closure Cost Estimate,  
Financial Assurance,  
and Liability Coverage  
 (cost estimate and financial  
 assurance must reflect  
 compliance with contingent  
 closure plan, if applicable)  
 [40 CFR 265.142, 265.143,  
 265.147, and 265.197(c)(3)  
 and (4)]

(These items are addressed under Sections I-D, I-E, and I-F)

Completeness/Technical Review  
Interim Status Closure Plan  
60-Inch Electroplate SPL Storage Tank Area  
LTV Steel Company, Inc.  
Cleveland Works East  
Cleveland, Ohio

EPA I.D. No. OHD004218673

SPECIFIC DEFICIENCY COMMENTS

I. General Closure Requirements

I.A. Closure Performance Standard [40 CFR 265.111]

LTV's proposed closure performance standard for the 60-Inch Electroplate SPL Storage Tank Area (the ESPL Tank Area) is deficient in several areas.

First, LTV proposes cleanup levels for the ESPL Tank Area for pH, total lead and total chrome, without providing a rationale for selecting only these waste characteristics and hazardous constituents. LTV should provide a rationale for the proposed parameters for the performance standard. This rationale should include:

- The basis for the listing of spent pickle liquor as a hazardous waste (e.g., high chromium and lead content, and low pH).
- Historical records documenting whether or not other hazardous wastes or Appendix VIII hazardous constituents have been managed in the unit over its operating life, and identifying these wastes and constituents, if any.
- An assessment of the specific characteristics of LTV's spent pickle liquor, including the absence or presence of other hazardous constituents and the basis for the assessment (e.g., previous waste analyses of LTV spent pickle liquor).

If other hazardous wastes or hazardous constituents have been managed in the ESPL Tank Area, the closure performance standard must be revised to provide criteria (e.g., hazardous constituent concentration levels) for determining the extent of decontamination required for these wastes or constituents. These performance standards must be based on Ohio EPA's "Closure Plan Review Guidance", February 8, 1988, and "Rinsate Clean Standards for RCRA Closures", October 6, 1988.

Second, LTV proposes to use as cleanup levels for containment facilities and sumps rinsate concentrations of 5.0 mg/l total chromium and 5.0 mg/l total lead. These concentrations are 100 times the applicable Maximum Contaminant Levels (MCLs) for these contaminants. Ohio policy requires use of MCLs or Maximum Contaminant Level Goals (MCLGs) as cleanup standards. Revise the closure plan to provide for a closure standard for containment facilities and sumps equal to or less than the applicable MCL or MCLG, in accordance with the two Ohio EPA guidances named above.

Third, the closure plan does not provide a closure performance standard for decontaminating and closing the two spent pickle liquor tanks in the ESPL Tank Area. As part of the conversion of these tanks to less than 90 day storage service, LTV must remove all waste from the tanks, decontaminate the tanks, and certify closure of the tanks. The tanks cannot be used for storing spent pickle liquor on a less than 90 day basis prior to receipt and approval of the closure certification by the State. LTV must revise the closure plan to provide a closure performance standard for the two spent pickle liquor tanks.

Finally, LTV has proposed a clean level for demonstrating that soils at the ESPL Tank Area have not been contaminated by hazardous wastes or constituents from the tank area. Generally, soil sampling and analysis plans are not required for the closure of tanks with secondary containment, unless there has been (or is reason to suspect there may have been) a release of hazardous waste or constituents outside the secondary containment area, or the integrity of the secondary containment area is impaired (e.g., due to gaps, cracks, or decomposition of the secondary containment structure). LTV must describe the condition of the secondary containment structure in the closure plan, identifying and describing any cracks, gaps, or other possible avenues for release from the containment structure. Additionally, LTV must identify any known releases of SPL from the secondary containment area, or tank system components outside the secondary containment area. If avenues of release from the containment area exist, or there have been known releases of SPL, LTV must provide a closure performance standard for removal or decontamination of potentially contaminated soils. The clean levels proposed by LTV are appropriate performance standards for the constituents discussed; however, additional clean levels should be provided, as discussed above, for additional Appendix VIII constituents identified as having been managed in the ESPL Tank Area if any. These levels should be based on the referenced Ohio EPA guidances.

#### I.B. Content of Closure Plan

##### I.B.-1. Description of Partial and/or Final Closure [40 CFR 265.112(b)]

The closure plan must specify whether closure of the ESPL Tank Area is a partial or final hazardous waste management facility closure. The closure plan indicates that LTV operates several spent pickle liquor storage units at the facility; therefore, it appears that closure of the ESPL Tank Area is a partial closure. The closure plan must identify all hazardous waste management units referenced in the Part A application. Revise the closure plan to include a list of all hazardous waste management units at the facility and provide a brief description of the proposed closures of the other units listed and of any relationships between closures activities at the ESPL Storage Area and these other units. Specify that the closure of the ESPL Tank area is a partial closure of the facility.

##### I.B-4. Detailed Description of Removal of Hazardous Waste Inventory [40 CFR 265.112(b)(3) and 265.114]

The closure plan contains no description of procedures for removal, treatment, and disposal of the ESPL Tank Area waste inventory. During closure, wastes in the ESPL Tanks at the beginning of closure will have to be removed and disposed in order to decontaminate the tanks. Use of the tanks for less than 90 day storage cannot begin until all wastes have been removed; the tanks, ancillary equipment and secondary containment have been decontaminated; the closure has been certified;

and the certification has been approved by the State. Revise the closure plan to identify the amount of waste in inventory at the ESPL Tank Area at closure and describe how hazardous wastes in storage will be removed, including a discussion of the following:

- Waste removal from the tanks and associated equipment (pumps, pipes), including spent pickle liquor and any accumulated sludges.
- A description of any treatment on-site prior to shipment, if appropriate.
- Waste transport, including an estimate of the amount of waste to be sent off-site, if any.
- The method of treatment or disposal of the final inventory, including both spent pickle liquor and any sludges or other tank residues.
- The location at which treatment or disposal will be performed.

K062 wastes are prohibited from land disposal (see 53 FR 31138, August 17, 1988). LTV must specify how the K062 waste will be managed in compliance with the land disposal restrictions.

I.B-5. Identification of and Type of Off-Site Hazardous Waste Management Units [40 CFR 265.112(b)(3)]

If LTV intends to dispose of the waste inventory in the ESPL Tanks off-site, LTV must revise the closure plan to specify how the wastes will be managed off-site. Also, state in the closure plan that once LTV has selected an off-site facility, LTV will submit to the Regional Administrator the following information, prior to waste shipment:

- The name and EPA I.D. number of the facility.
- The operational status of the facility (i.e., interim status or permitted).
- An estimate of the approximate distance to the final treatment or disposal facility.
- A description of the treatment or disposal methods to be used at the final treatment or disposal facility.

I.B-6. Decontamination and Removal of Hazardous Waste Residues [40 CFR 265.112(b)(4) and 265.114]

LTV's discussion of decontamination procedures is inadequate for several reasons, as discussed below.

Criteria for Determining the Extent of Decontamination Necessary

The plan must provide criteria for determining the extent of decontamination necessary for all contaminated equipment, structures, and soils. The closure plan does not provide adequate or correct criteria for determining the extent of decontamination required for the secondary containment area and tanks. Comment I.A. provides a detailed discussion of the revisions LTV must make to the plan to provide adequate criteria for determining the extent of decontamination necessary.

### Detailed Description of Decontamination Steps

The closure plan does not provide an adequate description of the decontamination steps (sequence of activities) to be followed in performing the closure. The plan must be revised to provide a description of the decontamination steps which will be followed. This description must describe the sequencing of decontamination activities for the tanks and secondary containment area, in order to demonstrate that the closure process will be carried out in a manner which minimizes the spread of any existing contamination to uncontaminated areas and the potential release of hazardous waste or constituents to the environment.

### Procedures for Cleaning Equipment and Structures and Removing Contaminated Soils

The closure plan does not adequately describe the procedures that will be followed in cleaning equipment and structures and removing contaminated soils.

First, the plan does not address decontamination procedures for the tanks and any associated equipment (pumps, pipes) in the ESPL Tank Area. As previously discussed, these tanks will need to be removed from service, decontaminated, and certified closed before they can be used for less than 90 days storage. Revise the plan to provide procedures for decontaminating the tanks. Include:

- A description of methods to be used to rinse or clean the tanks.
- A discussion of the cleaners, detergents, or solvents to be used and the reason for their selection.
- An estimate of the number of rinses to be used and the volume of cleaning solutions that will be generated.
- A description of how the solutions will be treated or disposed.
- A description of health and safety procedures to be followed when performing tank decontamination.

Second, the plan is not sufficiently specific in providing procedures for decontamination of the secondary containment area. Prior to rinsing the area, the secondary containment structure should be inspected to determine if there are any cracks or gaps through which decontamination solutions may be released, and to determine if there is visual evidence of waste leakage or spillage into the containment area. If cracks or gaps exist, they should be sealed prior to rinsing.

The closure plan must provide detailed procedures for conducting the decontamination of the secondary containment area, including procedures for removing rinsewaters and cleaning solutions. The plan must provide a rationale for use of the particular cleaning agents proposed for use. Additionally, the plan must provide an estimate of the volume of rinsate that will be generated through decontamination, and describe how and where the rinsate will be treated or disposed. Revise the plan to provide detailed procedures for decontaminating the secondary containment area at the ESPL Tank Area.

If the rinsate from the tank and secondary containment area decontamination is to be disposed of off-site, LTV must include in the closure plan the identity, EPA I.D. number, operating status, and location of the off-site facility to be used for treatment and/or disposal, or a statement that this information will be provided to the Regional Administrator following selection of the facility by LTV and prior to shipment of the waste off-site.

Third, LTV's closure plan proposes a soil boring program to determine if SPL has been released to soils. Soil sampling programs are required for closures of units where there is evidence of or potential for past or current releases of wastes to the environment; at such facilities, the sampling program should be designed to identify the presence of contaminated soils, and the horizontal and vertical extent of contamination.

The presence of an impermeable secondary containment system at the ESPL Tank Area would generally obviate the need for a soil sampling program unless there is evidence that a release to soils has occurred or is likely to have occurred. This evidence would include:

- History of operating the tanks prior to construction of secondary containment.
- Visual evidence of spills or leaks outside the secondary containment area.
- Existence of cracks or gaps in the secondary containment structure.
- Operating records indicating release of wastes from secondary containment area through overflow or spills and leaks outside the secondary containment area.

If evidence exists that releases may have occurred, the sampling program must be designed to identify the contamination and delineate its vertical and horizontal extent. The borings proposed by LTV are located outside the secondary containment area and would be unlikely to identify any soils contaminated by leaks through the base of the containment area; their location will only be useful to identify spills occurring due to overflows of the containment or leaks occurring in piping or equipment outside of the containment area.

Revise the closure plan to provide an evaluation of the potential for past or current releases of SPL. Include:

- A detailed description of the secondary containment area, including the size and location of any gaps, cracks, or decomposed brick or concrete.
- Information regarding any spills that may have occurred at the unit, including sources of information. This information may include historical operating records, interviews, or visual evidence of leaks or spills.

If there is evidence indicating that a release may have occurred, such as gaps or cracks in the containment, historical records of spills outside the secondary containment area, or visual evidence of spills to soils, revise the soil sampling plan to confirm the presence or absence of contamination. These revisions should include:

- Location of soil borings in visually contaminated areas, at cracks or gaps in the secondary containment, or at locations where spills have been observed in the past.
- Sampling depths for the borings. Samples should be taken at one-foot intervals within the first three to five feet of the soil surface, as specified in the sampling program provided by LTV in the existing plan.
- Expanding (if necessary) the list of parameters for which soils will be analyzed to include, in addition to total chrome, total lead, and pH, any additional Appendix VIII constituents included in the performance standard in response to comment I.A.

Provide a statement that, if soil contamination is found in excess of the clean criteria in the closure performance standard, LTV will revise the closure plan to include a plan for removal or decontamination of the contaminated soils and for sampling and analysis to demonstrate that all contaminated soils have been removed or decontaminated.

#### Methods for Sampling and Testing to Demonstrate the Success of Decontamination

The closure plan must specify the methods for sampling and testing to be used to demonstrate the success of decontamination or removal of the tanks and secondary containment structures. LTV has provided adequate methods for sampling rinsate from the secondary containment; however, the proposed clean levels are not appropriate for the constituents identified. LTV has not provided methods for sampling and analyzing rinsate from the tanks and has not provided clean levels for the rinsate. Revise the closure plan to include methods for sampling and analysis of rinsate from the tanks. Provide clean levels for the tank rinsate and for the secondary containment rinsate which cover total chromium, total lead, and pH, and all additional Appendix VIII constituents (if any) included in the closure performance standard in response to comment I.A. above. These levels must be based on Ohio EPA rinsate clean standards specified in the memorandum, "Rinsate Clean Standards for RCRA Closures", October 6, 1988, which are as follows:

- Public drinking water maximum contaminant levels (MCLs) for hazardous waste constituents as promulgated in 40 CFR 141.11 and OAC 3745-81-11 for inorganics and 40 CFR 141.12 and OAC 3745-81-12 for organics.
- If MCLs are not available for the constituent, then the maximum contaminant level goal (MCLG) as promulgated in 40 CFR 141.30.
- If neither an MCL or MCLG is available, 1 mg/l will be the level.

#### I.B-8. Schedule for Closure of Each Unit and Final Facility Closure [40 CFR 265.112(b)(6) and (7)]

The closure schedule must identify the expected year of closure of the unit. Additionally, it must provide sufficient detail to track closure of the ESPL Tank Area. Revise the plan to provide the expected year of closure of the ESPL Tank Area. Additionally, revise the schedule provided for closure of the ESPL Tank Area to include the following:



- Removal of waste inventory.
- Tank decontamination.
- Secondary containment area decontamination.
- Treatment and/or disposal of contaminated rinsate.
- Additional detail on the sequencing of sampling and analysis of rinsate and soils.
- Critical points during closure when an independent, registered professional engineer (PE) or the PE's representative will be present.

I.B-9. Amendment of Closure Plan [40 CFR 265.112(c)]

Include in the closure plan a statement that if an unexpected event occurs during closure which requires modification of the closure plan LTV will submit an amended closure plan to the EPA Regional Administrator no later than 30 days after the unexpected event occurs.

I.B-10. Notice of Partial and Final Closure [40 CFR 265.112(d)(1)]

The closure plan must be amended to indicate that the Administrator will be notified in writing at least 45 days before the date on which LTV expects to begin closure, if this closure is the final closure or is part of the final closure of this facility.

I.B-11. Schedule for Beginning Closure [40 CFR 265.112(d)(2)]

The revised closure plan must state that closure of the ESPL Tank Area will begin within 30 days after receipt of the final volume of hazardous waste.

I.B-12. Wastes Treated, Removed or Disposed of Within 90 Days and Extensions of Time Periods [40 CFR 265.113(a)]

The revised closure plan must state that all hazardous wastes (i.e., waste inventory, rinsates) will be removed within 90 days after the receipt of the final volume of hazardous waste, or within 90 days of approval of the closure plan, whichever is later.

I.B-14. Time Frames for Demonstrations for Extensions [40 CFR 265.113(c)]

Revise the closure plan to include a statement to the effect that LTV will submit a request for extension of the closure period to the Regional Administrator at least 30 days prior to the end of the initial 180 day closure period, if it appears the actual closure time will exceed the 180 day closure period.

I.B-15. Disposal or Decontamination of Equipment, Structures and Soils [40 CFR 265.114]

The plan provides no procedures for cleaning equipment used in decontaminating the tanks and secondary containment area. Revise the plan to:

- List all equipment which will be used during decontamination.
- Provide procedures for cleaning equipment.

- Provide procedures to prevent contamination of clean areas.
- Identify where this decontamination will occur and provide a layout of the decontamination zone.
- Describe how all washwaters, rinsate, etc., will be collected and managed. If rinsate will be treated or disposed off-site, provide the name, EPA I.D. number, location, and operational status of the facility where they will be managed or state that this information will be provided to the Regional Administrator prior to shipment of these materials. Note that K062 containing wastewaters are subject to the land disposal restrictions, 40 CFR 268.
- Provide an estimate of the volume of wash solutions and decontamination solids (if any).

Information concerning decontamination procedures may be found in the following references: Guide for Decontaminating Buildings, Structures and Equipment at Superfund Sites, U.S. EPA, 1985, and Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, Chapter 10, NIOSH, 1985.

### I.C. Certification of Closure

#### I.C-1. Certification of Closure [40 CFR 265.115]

The revised closure plan must include the following statement concerning certification of closure:

The certification will be signed by both the owner/operator and the independent registered professional engineer and will be submitted to the Regional Administrator by registered mail. The owner's/operator's and independent registered professional engineer's certifications of closure will follow the signature requirements found in Ohio Administrative Code (OAC) 3745-50-42. The owner's/operator's certification statement will follow the exact wording found in OAC 3745-50-42(D). Documentation supporting the independent registered professional engineer's certification will be furnished to the Regional Administrator upon request until the Regional Administrator releases the owner/operator from the financial assurance requirements for closure under 40 CFR 265.143(h).

#### I.D-1. Closure Cost Estimate [40 CFR 265.142]

The closure plan must include a detailed written cost estimate, in current dollars, of the cost of closing the ESPL Tank Area in accordance with the requirements in 40 CFR 265.111 through 265.115. The closure cost estimate must be based on the costs of hiring a third party to close the facility.

LTV has provided a closure cost estimate in 1989 dollars. However, the estimate is not sufficiently detailed and must be revised to provide the additional detail described below and to include any revisions to the closure plan made in response to this NOD. Additionally, the estimate must be made for the cost of having a third party perform closure, and must include labor costs, as well as material and transportation costs.

The estimate to be provided with the revised closure plan must be a detailed line item estimate. The cost estimate must include, but not be limited to, the following additional items as appropriate:

- Removal of waste inventory in compliance with 40 CFR 268.
- Transportation and disposition of wastes.
- Waste analyses.
- Protective clothing and equipment.
- Decontamination of the tanks, ancillary equipment, and containment area.
- Decontamination of equipment used in decontaminating the tanks and containment area.
- Removal of hazardous waste residues.
- Transportation and disposition of hazardous waste residues.
- Soil sampling, if the integrity of the containment area is impaired or other evidence of a release exists.
- Shipping and analysis of soil samples for all parameters required based on the performance standard.
- Sampling of rinsate from the containment area and equipment decontamination for determination of the success of decontamination.
- Shipping and analysis of rinsate samples.
- Labor costs.

Include separate estimates for labor, transportation, and disposal fees. Specify the basis for all cost estimates (i.e., contractor estimate, published estimates, past closure experience). Support each line estimate with unit costs for calculations.

**I.D-2. Adjustments for Inflation [40 CFR 265.142(b)]**

Revise the closure plan to indicate that the cost estimates for closure will be updated annually to reflect inflation. Specify in the closure plan that LTV will adjust the closure cost estimate: (1) within 30 days after closing LTV's fiscal year if the corporation is using the financial test or corporate guarantee; or (2) within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 40 CFR 265.143. State that LTV will use the inflation factor published in the U.S. Department of Commerce's Survey of Current Business to make this adjustment.

**I.D-3. Revisions to Closure Cost Estimate [40 CFR 265.142(c)]**

The closure plan must be revised to state that if a revision is made to the closure plan that increases the cost of the closure, the closure cost estimate will be revised no later than 30 days after the Administrator has approved the request to modify the closure plan.

I.E. Financial Assurance for Closure [40 CFR 265.143]

Provide a copy of the established financial assurance mechanism for facility closure. The mechanism must be one of the following:

- Closure trust fund [40 CFR 265.143(a)].
- Surety bond guaranteeing payment into a closure trust fund [40 CFR 265.143(b)].
- Closure letter of credit [40 CFR 265.143(c)].
- Closure insurance [40 CFR 265.143(d)].
- Financial test and corporate guarantee [40 CFR 265.143(e)].
- Multiple financial mechanisms [40 CFR 265.143(f)].
- Financial mechanism for multiple facilities [40 CFR 265.143(g)].

I.F. Liability Coverage [40 CFR 265.147]

I.F-1. Sudden Accidental Occurrences [40 CFR 265.147(a)]

The owner/operator is required to maintain liability coverage for sudden accidental occurrences throughout the closure period until the Regional Administrator receives certification that closure has been completed in accordance with the approved closure plan and the Regional Administrator notifies the owner/operator in writing they are no longer required to maintain liability coverage. Liability coverage must be maintained for sudden accidental occurrences in the amount of at least one million dollars per occurrence with an annual aggregate of at least two million dollars, exclusive of legal defense costs.

Provide documentation of compliance with applicable liability requirements for sudden accidental occurrences. Liability coverage may be demonstrated in one of the following ways (pursuant to 40 CFR 265.147, Final Rule, September 1, 1988):

- Liability insurance [40 CFR 265.147(a)(1)].
- Financial test or corporate guarantee [40 CFR 265.147(a)(2)].
- Letter of credit [40 CFR 265.147(a)(3)].
- Surety bond [40 CFR 265.147(a)(4)].
- Trust fund [40 CFR 265.147(a)(5)].
- Combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund [40 CFR 265.147(a)(6)].

Facility Name LTV Steel Company - Clvd. Works East  
60-Inch Electroplate Storage Tank Area  
 I.D. Number 0HD004218673

INTERIM STATUS CLOSURE AND POST-CLOSURE PLANS

[40 CFR 265 - Revised December 1988]

|  | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS</u>   |                                 |                           |                           |                                |
| A. <u>Closure Performance Standards</u><br>[40 CFR 265.111]  | <u>Y</u>                        | <u>N</u>                  | <u>p. 7</u>               | <u>See comment I.A.</u>        |
| B. <u>Content of Closure Plan</u>  |                                 |                           |                           |                                |
| B-1. Description of partial and/or<br>final closure of the facility<br>[40 CFR 265.112(b)(2)]                    | <u>Y</u>                        | <u>N</u>                  | <u>p. 7</u>               | <u>See comment I.B-1.</u>      |
| B-2. Identification of maximum<br>extent of operations<br>[40 CFR 265.112(b)(2)]                                 | <u>Y</u>                        | <u>Y</u>                  | <u>pp. 3&amp;5</u>        | <u>---</u>                     |
| B-3. Estimate of maximum inventory<br>of hazardous waste<br>[40 CFR 265.112(b)(3)]                               | <u>Y</u>                        | <u>Y</u>                  | <u>p. 3</u>               | <u>---</u>                     |
| B-4. Detailed description of<br>removal of hazardous waste<br>inventory<br>[40 CFR 265.112(b)(3) and<br>265.114] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-4.</u>      |

Facility Name LTV Steel Company - Clvd. Works East  
60-Inch Electroplate Storage Tank Area  
 I.D. Number OHD004218673

|  | <u>Provided<br/>(Y/N) or NA)</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|----------------------------------|---------------------------|---------------------------|--------------------------------|
| B-5. Identification of and type of off-site hazardous waste management unit(s)<br>[40 CFR 265.112(b)(3)] | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-5.</u>      |
| B-6. Decontamination and removal of hazardous waste residues<br>[40 CFR 265.112(b)(4) and 265.114]       | <u>Y</u>                         | <u>N</u>                  | <u>p. 8</u>               | <u>See comment I.B-6.</u>      |
| B-7. Detailed description of other activities necessary for closure<br>[40 CFR 265.112(b)(5)]            | <u>N/A</u>                       | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |
| B-8. Schedule for closure of each unit and final facility closure<br>[40 CFR 265.112(b)(6) and (7)]      | <u>Y</u>                         | <u>-</u>                  | <u>p. 15</u>              | <u>See comment I.B-8.</u>      |
| B-9. Amendment of closure plan<br>[40 CFR 265.112(c)]  | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-9.</u>      |
| B-10. Notification of partial and final closure<br>[40 CFR 265.112(d)(1)]                                | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-10.</u>     |

Facility Name LTV Steel Company - Clvd. Works East  
60-Inch Electroplate Storage Tank Area  
 I.D. Number 0HD004218673

|       |   | <u>Provided<br/>(Y/N) or NA)</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|-------|---|----------------------------------|---------------------------|---------------------------|--------------------------------|
| B-11. | Schedule for beginning closure<br>[40 CFR 265.112(d)(2)]  | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-11.</u>     |
| B-12. | Wastes treated, removed or<br>disposed of within 90 days<br>and extensions of time periods<br>[40 CFR 265.113(a)] | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-12.</u>     |
| B-13. | Closure completed within<br>180 days and extensions<br>of time periods<br>[40 CFR 265.113(b)]                     | <u>Y</u>                         | <u>Y</u>                  | <u>p. 15</u>              | <u>---</u>                     |
| B-14. | Timeframes for demonstrations<br>for extensions [40 CFR 265.113(c)]   | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-14.</u>     |
| B-15. | Disposal or decontamination of<br>equipment, structures, and soils<br>[40 CFR 265.114]                            | <u>N</u>                         | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-15.</u>     |
| C.    | <u>Certification of Closure<br/>and Survey Plat</u>   |                                  |                           |                           |                                |
| C-1.  | Certification of closure<br>[40 CFR 265.115]  | <u>Y</u>                         | <u>N</u>                  | <u>p. 15</u>              | <u>See comment C-1.</u>        |
| C-2.  | Survey plat<br>[40 CFR 265.116]   | <u>N/A</u>                       | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |



Facility Name LTV Steel Company - Clvd. Works East  
60-Inch Electroplate Storage Tank Area  
 I.D. Number 0HD004218673

|      | <u>Provided</u><br><u>(Y/N) or NA)</u>                                 | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|------|--|---------------------------------|---------------------------------|--------------------------------|
| I.   | <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>                           |                                 |                                 |                                |
| D.   | <u>Closure Cost Estimate</u>   |                                 |                                 |                                |
| D-1. | Cost estimate when closure<br>is most expensive<br>[40 CFR 265.142(a)] |                                 |                                 |                                |
|      | <u>Y</u>   | <u>N</u>                        | <u>p. 16</u>                    | <u>See comment I.D-1.</u>      |
| D-2. | Adjustments for inflation<br>[40 CFR 265.142(b)]                       |                                 |                                 |                                |
|      | <u>N</u>   | <u>-</u>                        | <u>-</u>                        | <u>See comment I.D-2.</u>      |
| D-3. | Revisions to closure cost<br>estimates [40 CFR 265.142(c)]             |                                 |                                 |                                |
|      | <u>N</u>   | <u>-</u>                        | <u>-</u>                        | <u>See comment I.D-3.</u>      |

Facility Name LTV Steel Company - Clvd. Works East  
60-Inch Electroplate Storage Tank Area  
 I.D. Number OHD004218673

|      |  | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|------|--|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I.   | <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>                                     |                                 |                           |                           |                                |
| E.   | <u>Financial Assurance for<br/>Closure [40 CFR 265.143]</u>                      |                                 |                           |                           |                                |
| E-1. | Closure trust fund<br>[40 CFR 265.143(a)]  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-2. | Surety bond guaranteeing<br>payment to closure trust fund<br>[40 CFR 265.143(b)] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-3. | Closure letter of credit<br>[40 CFR 265.143(c)]                                  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-4. | Closure insurance<br>[40 CFR 265.143(d)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-5. | Financial test and<br>corporate guarantee<br>[40 CFR 265.143(e)]                 | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-6. | Multiple financial mechanisms<br>[40 CFR 265.143(f)]                             | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |
| E-7. | Financial mechanisms for<br>multiple facilities<br>[40 CFR 265.143(g)]           | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.E.</u>        |

Facility Name LTV Steel Company - Clvd. Works East  
60-Inch Electroplate Storage Tank Area  
 I.D. Number QHD004218673

|  | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>  |                                 |                           |                           |                                |
| F. <u>Liability Coverage</u>   |                                 |                           |                           |                                |
| F-1. Sudden accidental occurrences<br>[40 CFR 265.147(a)]                                      | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Endorsement or certification<br>[40 CFR 265.147(a)(1)]                                       | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Financial test or corporate<br>guarantee for liability<br>coverage<br>[40 CFR 265.147(a)(2)] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Letter of credit<br>[40 CFR 265.147(a)(3)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Surety bond<br>[40 CFR 265.147(a)(4)]  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Trust fund<br>[40 CFR 265.147(a)(5)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Use of multiple financial<br>mechanisms<br>[40 CFR 265.147(a)(6)]                            | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |

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|  | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>  |                                 |                           |                           |                                |
| F-2. Non-sudden accidental occurrences<br>[40 CFR 265.147(b)]                                  |                                 |                           |                           |                                |
| • Endorsement or certification<br>[40 CFR 265.147(b)(1)]                                       | <u>N/A</u>                      | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |
| • Financial test or corporate<br>guarantee for liability<br>coverage<br>[40 CFR 265.147(b)(2)] | <u>N/A</u>                      | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |
| • Letter of credit<br>[40 CFR 265.147(b)(3)]   | <u>N/A</u>                      | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |
| • Surety bond<br>[40 CFR 265.147(b)(4)]  | <u>N/A</u>                      | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |
| • Trust fund<br>[40 CFR 265.147(b)(5)]   | <u>N/A</u>                      | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |
| • Use of multiple financial<br>mechanisms<br>[40 CFR 265.147(b)(6)]                            | <u>N/A</u>                      | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |

Facility Name LTV Steel Company - Clvd. Works East  
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 I.D. Number 0HD004218673

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|---|----------------------------------|---------------------------|---------------------------|---|
| III. <u>CLOSURE OF TANK SYSTEMS</u>   |                                  |                           |                           |   |
| A. <u>Closure Performance Standards<br/>for the Tank System</u><br>[40 CFR 265.111]   |                                  |                           |                           | (This item is addressed under Section I-A.)   |
| B. <u>Content of Closure Plan</u>   |                                  |                           |                           |   |
| B-1. Detailed description of<br>how the tank system will<br>be closed<br>[40 CFR 265.112(b)(1) and<br>265.197(a)]               | <u>Y</u>                         | <u>N</u>                  | <u>pp. 7&amp;8</u>        | <u>See comments I,B-4, 5, 6, 7, &amp; 15.</u> |
| B-2. Identification of maximum<br>extent of operation of<br>the tank system<br>[40 CFR 265.112(b)(2) and<br>265.197(a)]         | <u>Y</u>                         | <u>Y</u>                  | <u>pp. 1&amp;3</u>        | <u>---</u>                                    |
| B-3. Estimate of maximum inventory<br>of hazardous waste ever in the<br>tank system<br>[40 CFR 265.112(b)(3) and<br>265.197(a)] | <u>Y</u>                         | <u>Y</u>                  | <u>p. 3</u>               | <u>---</u>                                    |

III-1

N/A = Not Applicable

Facility Name LTV Steel Company - Clvd. Works East  
60-Inch Electroplate Storage Tank Area  
 I.D. Number OHD004218673

|      |  | <u>Provided</u><br><u>(Y/N) or NA</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u>        |
|------|--|---------------------------------------|---------------------------------|---------------------------------|---------------------------------------|
| B-4. | Detailed description of removal of hazardous waste inventory<br>[40 CFR 265.112(b)(3), 265.114, and 265.197(a)]                    | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-4.</u>             |
| B-5. | Identification of and type of off-site hazardous waste management unit(s)<br>[40 CFR 265.112(b)(3) and 265.197(a)]                 | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-5.</u>             |
| B-6. | Criteria for determining the extent of decontamination necessary<br>[40 CFR 265.112(b)(4), 265.114, and 265.197(a)]                | <u>Y</u>                              | <u>N</u>                        | <u>p. 7</u>                     | <u>See comments I.A. &amp; I.B-6.</u> |
| B-7. | Detailed description of decontamination steps<br>[40 CFR 265.112(b)(4), 265.114, and 265.197(a)]                                   | <u>Y</u>                              | <u>N</u>                        | <u>p. 8</u>                     | <u>See comment I.B-6.</u>             |
| B-8. | Procedures for cleaning equipment and structures and removing contaminated soils<br>[40 CFR 265.112(b)(4), 265.114 and 265.197(a)] | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-15.</u>            |

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|  | <u>Provided<br/>(Y/N) or NA)</u>             | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|--|---------------------------|---------------------------|--------------------------------|
| B-9. Detailed description of removal of waste residues [40 CFR 265.112(b)(4), 265.114 and 265.197(a)]  | <u>Y</u>                                     | <u>N</u>                  | <u>p. 8</u>               | <u>See comment I-B.6.</u>      |
| B-10. Methods for sampling and testing to demonstrate success of decontamination [40 CFR 265.112(b)(4), 265.114, and 265.197(a)]                   | <u>Y</u>                                     | <u>Y</u>                  | <u>pp. 9-13</u>           | <u>---</u>                     |
| B-11. Detailed description of other necessary activities [40 CFR 265.112(b)(5)]  | <u>Y</u>                                     | <u>N</u>                  | <u>pp.10-13</u>           | <u>See comment I-B-7.</u>      |
| B-12. Contingent plan for closing as a landfill (required for tank systems requiring, but not having secondary containment) [40 CFR 265.197(c)(1)] | <u>N/A</u>                                   | <u>-</u>                  | <u>-</u>                  | <u>---</u>                     |
| B-13. Detailed schedule for closure of the tank system [40 CFR 265.112(b)(6)]  | (This item is addressed under Section I-B-8) |                           |                           |                                |



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|   | <u>Provided</u><br><u>(Y/N) or NA)</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u>                               |
|---|--|---------------------------------|---------------------------------|--|
| C. <u>Closure Cost Estimate,</u><br><u>Financial Assurance,</u><br><u>and Liability Coverage</u><br>(cost estimate and financial<br>assurance must reflect<br>compliance with contingent<br>closure plan, if applicable)<br>[40 CFR 265.142, 265.143,<br>265.147, and 265.197(c)(3)<br>and (4)] |  |                                 |                                 | (These items are addressed under Sections I-D, I-E, and I-F) |

Completeness/Technical Review  
Interim Status Closure Plan  
Degreaser Sludge Container  
LTV Steel Company, Inc.  
Cleveland Works East  
Cleveland, Ohio

EPA ID. No. OHD004218673

SPECIFIC DEFICIENCY COMMENTS

I. General Closure Requirements

I.A. Closure Performance Standard [40 CFR 265.111]

The closure performance standard must establish levels of decontamination, cleanup, and control for the sludge container area which demonstrates that the facility will be closed in a manner which:

- Minimizes the need for further maintenance.
- Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere.

The performance standard must address all hazardous wastes which have been contained in the waste management unit, and must address the unit, its appurtenances, and any contamination which has resulted from the unit.

LTV's closure plan for the sludge container storage area is inadequate for the following reasons:

- The performance standard addresses only perchloroethylene contamination in establishing cleanup levels for the unit. The performance standard proposed for perchloroethylene is in accordance with existing Ohio EPA guidance. However, the performance standard must address all hazardous wastes and hazardous constituents that have been managed in the unit. Therefore, LTV must:
  - Provide a rationale for providing a performance standard for perchloroethylene only. This rationale must include historical records and data documenting that perchloroethylene sludge is the only hazardous waste which has been managed in the sludge container area, and that no Appendix VIII hazardous constituents other than perchloroethylene have been managed in the unit. Data submitted to support the rationale should include the results of waste analyses conducted on the perchloroethylene sludge.
  - If LTV cannot demonstrate through the operating record for the unit, generating process knowledge, and existing analyses of the sludge, that no other Appendix VIII constituents have been present in wastes managed in the unit, LTV must analyze a representative sample of the sludge for all Appendix VIII constituents and submit the results.

- If the operating record, historical waste analyses, or Appendix VIII analytical results for the sludge indicate that other hazardous wastes or constituents (in addition to perchloroethylene) have been managed in the sludge container area, LTV must revise the performance standard to provide criteria for determining the success of closure for these additional Appendix VIII constituents. The performance standard provided these additional Appendix VIII constituents must be in accordance with Ohio EPA "Closure Plan Review Guidance", February 8, 1988.
- The performance standard addresses only soil contamination. The standard must address standards for decontaminating and/or disposing of the gravel and sludge container. The performance standard for decontamination or disposal of the gravel and container should address perchloroethylene and any other Appendix VIII constituents identified as having been managed in the sludge container area.

The performance standard for decontamination, if appropriate (e.g., if LTV will decontaminate the gravel or container prior to disposal), must identify the criteria (e.g., constituent concentrations in rinsate) which will be used to determine when decontamination is complete.

The performance standard for removal of contaminated gravel must identify the criteria for determining the extent of gravel removal required.

The performance standard for closure of the container must provide criteria for determining when closure of the container has been successfully completed. The standard need not be elaborate (e.g., the standard could consist of removal, transportation, and disposal of the sludge container, and of all wastes contained in the container at the time of closure, at an appropriate off-site hazardous waste management facility in compliance with 40 CFR 268 standards for the land disposal restrictions).

Revise the plan to provide a performance standard for decontamination or disposal of the sludge container and gravel.

## I.B. Content of Closure Plan

### I.B-1. Description of Partial and/or Final Closure [40 CFR 265.112(b)]

The closure plan must specify whether closure of the sludge container is a partial or final hazardous waste management facility closure. The closure plan indicates that LTV operates several waste management units at the facility; therefore, it appears that closure of the sludge container is a partial closure. The closure plan must identify all hazardous waste management units referenced in the Part A application. Revise the closure plan to include a list of all hazardous waste management units at the facility and provide a brief description of the proposed closures of the other units listed and of any relationships between closures activities for the sludge container and these other units. Specify that the closure of the sludge container is a partial closure of the facility.

I.B-3. Estimate of Maximum Inventory of Hazardous Waste [40 CFR 265.112(b)(3)]

The closure plan states a 529-gallon container was used to store waste sludge. However, LTV has not provided a maximum waste inventory for the sludge container. Provide an estimate of the maximum inventory of hazardous waste in the sludge container.

I.B-4. Detailed Description of Removal of Hazardous Waste Inventory [40 CFR 265.112(b)(3) and 265.114]

The closure plan states that the existing container will be emptied and properly disposed. This does not adequately describe procedures for removal, treatment, and disposal of the sludge container waste inventory. At the beginning of closure, waste inventory in the sludge container will have to be removed and disposed in order to dispose or decontaminate the container. Revise the closure plan to identify the amount of waste in inventory at closure and describe how the inventory will be removed, including a discussion of the following:

- Waste removal from the container.
- A description of any on-site treatment to be performed prior to shipment off-site, if appropriate.
- Waste transport, including an estimate of the amount of waste to be sent off-site, if any.

F001 wastes are prohibited from land disposal effective November 7, 1986 (see 51 FR 40572). LTV must specify in the closure plan how they will manage the sludge to comply with the solvent land disposal restrictions, 40 CFR 268.

I.B-5. Identification of and Type of Off-Site Hazardous Waste Management Units [40 CFR 265.112(b)(3)]

If LTV intends to dispose of the waste inventory off-site, LTV must revise the closure plan to specify how the wastes will be managed off-site. Also, state in the closure plan that once LTV has selected an off-site facility for treatment and/or disposal of the waste, LTV will submit the following information to the Regional Administrator prior to waste shipment:

- The name and EPA I.D. number of the facility.
- An estimate of the approximate distance to the final treatment or disposal facility.
- The operational status of the facility (i.e., interim status or permitted).
- A description of the treatment or disposal methods to be used at the final treatment or disposal facility.

I.B-6. Decontamination and Removal of Hazardous Waste Residues [40 CFR 265.112(b)(4) and 265.114]

LTV's discussion of decontamination procedures is inadequate for several reasons, as described below.

Criteria for Determining the Extent of Decontamination Necessary

The plan must provide criteria for determining the extent of decontamination necessary for all contaminated equipment, structures, and soils. The closure plan does not provide adequate criteria for determining the extent of decontamination required for gravel, soils, and the sludge container. Comment I.A. provides a detailed discussion of the revisions LTV must make to the plan to provide adequate criteria for determining the extent of decontamination necessary.

Detailed Description of Decontamination Steps

The closure plan does not provide an adequate description of the decontamination steps (sequence of activities) to be followed in performing the closure. The plan must be revised to provide a description of the decontamination steps which will be followed. This description must describe the sequencing of decontamination activities for the sludge container, gravel, and soils, in order to demonstrate that the closure process will be carried out in a manner which minimizes the spread of any existing contamination to uncontaminated areas, and the potential release of hazardous waste or constituents to the environment.

Procedures for Cleaning Equipment and Structures and Removing Contaminated Soils

The closure plan does not adequately describe the procedures that will be followed in cleaning equipment and structures and removing contaminated soils.

First, the closure plan does not address removal and disposal of the sludge container. The plan must provide the following information on removal, decontamination (if applicable), and disposal of the container:

- A description of any on-site activities to decontaminate the container (if applicable), including the location of decontamination, decontamination procedures, and procedures for collecting and disposing decontamination residues or rinsate as a hazardous waste.
- Method of removal and transportation.
- Identity, EPA I.D. number, operating status, location, and distance to the off-site facility at which the container will be decontaminated and/or disposed, or a statement that this information will be provided to the Regional Administrator following selection of the facility by LTV and prior to shipment.
- Method of final decontamination and/or disposal.

In identifying a method of disposal, LTV should note that the sludge container was used to store F001 waste and its disposal, therefore, is subject to the land disposal restrictions promulgated in 40 CFR 268.

Second, the closure plan does not address procedures for decontamination and/or removal of the gravel pad. The plan must be revised to:

- Provide a description of any on-site activities to decontaminate the gravel (if applicable), including the location of decontamination, decontamination procedures, and procedures for collecting and disposing decontamination residues or rinsates as a hazardous waste.
- Methods that will be used to remove the gravel, including a description of staging areas to be used providing details on the design, construction materials, and operation of the area.
- Method of transportation and off-site disposal, if appropriate, including the identity, EPA I.D. number, operating, status, location, and distance to the off-site facility, or a statement that this information will be provided to the Regional Administrator after selection of the facility by LTV and before shipment of gravel.

If the gravel is contaminated with F001 wastes or other hazardous constituents, the gravel may be subject to land disposal restrictions promulgated under 40 CFR 268 and its method of disposal must be in compliance with these standards.

Third, the soil sampling program description in the closure plan is inadequate. LTV proposes a trench excavation and sampling program to evaluate whether any perchloroethylene has been released to soils or fill. The sludge container was located on an unlined gravel pad; therefore, a sampling program to identify and determine the vertical and horizontal extent of any soil or fill contamination is appropriate. However, LTV must revise the proposed plan to:

- Identify any areas on the gravel pad where leaks or spills are known to have occurred or are likely to have occurred, based on operating methods and the operating history of the sludge container.
- Identify the proposed locations and extent of the test pits on the gravel pad and provide a supporting rationale for the number and locations of test pits. Provide a layout showing the locations of the pits.
- Provide for soil samples to be taken at one-foot depth intervals within the first four feet of the ground surface, in accordance with the requirements of Ohio EPA "Closure Plan Review Guidance," February 8, 1988.
- Provide additional details on the procedures and location for decontaminating the backhoe between test pits and upon completion, including procedures for collecting and treating or disposing rinsates and preventing contamination of clean areas.

Fourth, the plan does not address removal and disposal of potentially contaminated soils. The plan must be revised to:

- Provide an estimate of potential amounts of contaminated soils.
  - Describe how contaminated soils will be removed or decontaminated.
  - Provide a description of the staging area(s) which will be used, including details on the design, construction materials, and operation of the staging area(s).
  - Provide a description of methods which will be used to prevent cross-contamination of soils during the excavation and transportation of contaminated soils to the staging areas.
  - Describe measures which will be taken in the event there is a spill on uncontaminated soil during contaminated soil removal.
  - Provide a description of an air monitoring program which will be implemented during contaminated soil excavation and removal to measure the concentrations of volatile organic vapors and particulates.
- 
- Page 10 describes Level D protective clothing to be worn during closure. Demonstrate that this level of protective clothing is adequate for all closure activities or provide criteria that will be used to determine the level of protective clothing to be worn based on the concentrations of organic vapors and particulates generated during excavation and removal operations.
  - Provide a description of the dust suppression techniques (i.e., tarps or wetting agents) which will be used during excavation.
  - Provide a description of the procedure to be implemented if a sampling point exceeds background and analytical detection limits. Specify how contaminated soil around the sampling point will be excavated in a logical, layer-by-layer sequence. Indicate the thickness of each layer to be removed at the new depth until the soil is determined to be clean.
  - Identify methods to be used for treatment and disposal of contaminated soils.
  - Provide the location, identity, EPA I.D. number, and operating status of the treatment or disposal facility for soil disposal, if off-site treatment and disposal will be used, or state that this information will be provided to the Regional Administrator prior to the shipment of any soils.
  - Describe sampling and analysis procedures to be used to determine that contaminated soil removal is complete.

In revising the plan, LTV should note that soils contaminated with perchloroethylene are subject to land disposal restriction under 40 CFR 268, if the concentration of PCE and any other F001-F005 listed solvent in the soils equals or exceeds 1 ppm.

### Methods for Sampling and Testing to Demonstrate the Success of Decontamination

The closure plan must specify the methods for sampling and testing to be used to demonstrate the success of decontamination or removal of contaminated gravels, soils, structures, and equipment. LTV has provided no sampling and analysis program to demonstrate that decontamination and/or removal of the sludge container, gravel, and any contaminated soils will meet the closure performance standard. LTV must revise the plan to provide the following:

- A sampling and analysis program for rinsate from sludge container decontamination to demonstrate that decontamination is complete in accordance with the performance standard, if decontamination will be conducted on-site.
- A sampling and analysis program for gravel in the gravel pad for demonstrating that all contaminated gravel has been removed and/or decontaminated.
- A sampling and analysis program for soils to demonstrate the adequacy of removal of any contaminated soils. LTV has provided a sampling program for soils to determine if contamination is present, which has been commented on above. LTV must also provide a sampling and analysis program for determining when soil removal activities, if necessary, are complete (achieve the performance standard).

The sampling and analysis programs must identify the type, number, and, as appropriate, location of samples to be taken; the sampling methods and equipment to be used; the parameters to be analyzed for, which must, at a minimum, be those identified in the revised closure performance standard; the analytical methods to be used; evidence of laboratory QA/QC procedures; and a clear statement of the "clean" level that will apply, based on Ohio EPA guidance for "Closure Plan Review Guidance" (February 8, 1988) and "Rinsate Clean Standards" (October 6, 1988).

#### I.B-8. Schedule for Closure of Each Unit and Final Facility Closure [40 CFR 265.112(b)(6) and (7)]

The closure schedule does not provide an expected year of closure for the unit and lacks sufficient detail to track closure of the unit. Revise the plan to provide the expected year of closure of the sludge container area. Additionally, revise the schedule provided for closure of the sludge container to include the following:

- Removal of waste inventory.
- Container removal and decontamination or disposal.
- Equipment decontamination, analytical testing to demonstrate successful decontamination, and management of decontamination rinsate.
- Critical points during closure when an independent, registered professional engineer (PE) or the PE's representative will be present.



I.B-9. Amendment of Closure Plan [40 CFR 265.112(c)]

Include in the closure plan a statement that if an unexpected event occurs during closure which requires modification of the closure plan, LTV will submit an amended closure plan to the Regional Administrator no later than 30 days after the unexpected event occurs.

I.B-10. Notice of Partial and Final Closure [40 CFR 265.112(d)(1)]

The closure plan must be amended to indicate that the Regional Administrator will be notified in writing at least 45 days before the date on which LTV expects to begin closure of the sludge container, if this closure is the final closure or is part of the final closure of this facility.

I.B-11. Schedule for Beginning Closure [40 CFR 265.112(d)(2)]

The revised closure plan must state that closure of the sludge container will begin within 30 days after receipt of the final volume of hazardous waste.

I.B-12. Wastes Treated, Removed or Disposed of Within 90 Days and Extensions of Time Periods [40 CFR 265.113(a)]

The revised closure plan must state that all hazardous wastes (i.e., waste inventory, decontamination rinsate, and contaminated gravel and soil) will be removed within 90 days after the receipt of the final volume of hazardous waste, or within 90 days of approval of the closure plan, whichever is later.

I.B-14. Time Frames for Demonstrations for Extensions [40 CFR 265.113(c)]

Revise the closure plan to include a statement to the effect that LTV will submit a request for extension of the closure period to the Regional Administrator at least 30 days prior to the end of the initial 180 day closure period, if it appears the actual closure time will exceed the 180 day closure period.

I.B-15. Disposal or Decontamination of Equipment, Structures and Soils [40 CFR 265.114]

The plan provides no procedures for cleaning equipment and structures used in removing the sludge container and contaminated fill or soils. Revise the plan to:

- List all equipment (i.e., backhoe) which will be used during closure and decontamination.
- Provide procedures for cleaning or disposing of all equipment listed.
- Provide procedures to prevent contamination of clean areas.
- Identify where decontamination will occur and provide a layout of the decontamination zone.
- Describe how all washwaters, rinsate, etc., will be collected and managed, including the name, EPA I.D. number, location, and operational status of the facility where they will be managed, or state that this information will be provided to the Regional Administrator prior to shipment of these materials to the facility.

- Provide criteria and sampling and analysis methods for determining when decontamination is complete.
- Provide an estimate of the volume of wash solutions and decontamination solids (if any).
- Describe decontamination equipment that will be needed.

Information concerning decontamination procedures may be found in the following references: Guide for Decontaminating Buildings, Structures and Equipment at Superfund Sites, U.S. EPA, 1985, and Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, Chapter 10, NIOSH, 1985.

#### I.C. Certification of Closure

##### I.C-1. Certification of Closure [40 CFR 265.115]

The revised closure plan must include the following statement concerning certification of closure:

The certification will be signed by both the owner/operator and the independent registered professional engineer and will be submitted to the Regional Administrator by registered mail. The owner's/operator's and independent registered professional engineer's certifications of closure will follow the signature requirements found in Ohio Administrative Code (OAC) 3745-50-42. The owner's/operator's certification statement will follow the exact wording found in OAC 3745-50-42(D). Documentation supporting the independent registered professional engineer's certification will be furnished to the Regional Administrator upon request until the Regional Administrator releases the owner/operator from the financial assurance requirements for closure under 40 CFR 265.143(h).

##### I.D-1. Closure Cost Estimate [40 CFR 265.142]

The closure plan must include a detailed written cost estimate, in current dollars, of the cost of closing the sludge container in accordance with the requirements in 40 CFR 265.111 through 265.115. The closure cost estimate must be based on the costs of hiring a third party to close the facility.

LTV has provided a closure cost estimate in 1989 dollars. The cost estimate explicitly excludes costs for contaminated gravel and soil removal and confirmatory sampling. These costs must be included in the cost estimate. Additionally, the estimate is not sufficiently detailed and must be revised to provide the detail described below and to include any revisions to the closure plan made in response to this NOD. Finally, the estimate must be made for the cost of having a third party perform closure, and must include labor costs, as well as material and transportation costs.

The estimate to be provided with the revised closure plan must be a detailed line item estimate. The cost estimate must include, but not be limited to, the following items as appropriate:

- Removal of waste inventory in compliance with 40 CFR 268.
- Transportation and disposition of waste inventory.
- Waste analyses.
- Protective clothing and equipment.
- Decontamination and/or disposal of the sludge container and equipment used in closure.
- Removal of hazardous waste residues and rinsate.
- Transportation and disposition of hazardous waste residues and rinsate.
- Shipping and analysis of soil samples for all parameters required based on the performance standard (see comment I.A.).
- Removal and disposal of any contaminated soils and gravel.
- Sampling of decontamination rinsate to determine the success of equipment decontamination.
- Shipping and analysis of rinsate samples.
- Labor costs.

Include separate estimates for labor, transportation, and disposal fees. Specify the basis for all cost estimates (i.e., contractor estimate, published estimates, past closure experience). Support each line estimate with unit costs for calculations.

**I.D-2. Adjustments for Inflation [40 CFR 265.142(b)]**

Revise the closure plan to indicate that the cost estimates for closure will be updated annually to reflect inflation. Specify in the closure plan that LTV will adjust the closure cost estimate: (1) within 30 days after closing LTV's fiscal year if the corporation is using the financial test or corporate guarantee; or (2) within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 40 CFR 265.143. State that the inflation factor published in the U.S. Department of Commerce's Survey of Current Business will be used.

**I.D-3. Revisions to Closure Cost Estimate [40 CFR 265.142(c)]**

The closure plan must be revised to state that if a revision is made to the closure plan that increases the cost of the closure, the closure cost estimate will be revised no later than 30 days after the Administrator has approved the request to modify the closure plan.

I.E. Financial Assurance for Closure [40 CFR 265.143]

Provide a copy of the established financial assurance mechanism for facility closure. The mechanism must be one of the following:

- Closure trust fund [40 CFR 265.143(a)].
- Surety bond guaranteeing payment into a closure trust fund [40 CFR 265.143(b)].
- Closure letter of credit [40 CFR 265.143(c)].
- Closure insurance [40 CFR 265.143(d)].
- Financial test and corporate guarantee [40 CFR 265.143(e)].
- Multiple financial mechanisms [40 CFR 265.143(f)].
- Financial mechanism for multiple facilities [40 CFR 265.143(g)].

I.F. Liability Coverage [40 CFR 265.147]

I.F-1. Sudden Accidental Occurrences [40 CFR 265.147(a)]

The owner/operator is required to maintain liability coverage for sudden accidental occurrences throughout the closure period until the Regional Administrator receives certification that closure has been completed in accordance with the approved closure plan and the Regional Administrator notifies the owner/operator in writing they are no longer required to maintain liability coverage. Liability coverage must be maintained for sudden accidental occurrences in the amount of at least one million dollars per occurrence with an annual aggregate of at least two million dollars, exclusive of legal defense costs.

Provide documentation of compliance with applicable liability requirements for sudden accidental occurrences. Liability coverage may be demonstrated in one of the following ways (pursuant to 40 CFR 265.147, Final Rule, September 1, 1988):

- Liability insurance [40 CFR 265.147(a)(1)].
- Financial test or corporate guarantee [40 CFR 265.147(a)(2)].
- Letter of credit [40 CFR 265.147(a)(3)].
- Surety bond [40 CFR 265.147(a)(4)].
- Trust fund [40 CFR 265.147(a)(5)].
- Combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund [40 CFR 265.147(a)(6)].

Facility Name LTV Steel Company - Clvd. Works East  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

INTERIM STATUS CLOSURE AND POST-CLOSURE PLANS  
 [40 CFR 265 - Revised December 1988]

|  | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS</u>   |                                 |                           |                           |                                |
| A. <u>Closure Performance Standards</u><br>[40 CFR 265.111]  | <u>Y</u>                        | <u>N</u>                  | <u>p. 6</u>               | <u>See comment I.A.</u>        |
| B. <u>Content of Closure Plan</u>  |                                 |                           |                           |                                |
| B-1. Description of partial and/or<br>final closure of the facility<br>[40 CFR 265.112(b)(2)]                    | <u>Y</u>                        | <u>N</u>                  | <u>p. 6</u>               | <u>See comment I.B-1.</u>      |
| B-2. Identification of maximum<br>extent of operations<br>[40 CFR 265.112(b)(2)]                                 | <u>Y</u>                        | <u>Y</u>                  | <u>pp. 3,5,&amp;7</u>     | <u>---</u>                     |
| B-3. Estimate of maximum inventory<br>of hazardous waste<br>[40 CFR 265.112(b)(3)]                               | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-3.</u>      |
| B-4. Detailed description of<br>removal of hazardous waste<br>inventory<br>[40 CFR 265.112(b)(3) and<br>265.114] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-4.</u>      |

Facility Name LTV Steel Company - Clvd. Works east  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|       |   | <u>Provided</u><br><u>(Y/N) or NA</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|-------|---|---------------------------------------|---------------------------------|---------------------------------|--------------------------------|
| B-5.  | Identification of and type of<br>off-site hazardous waste<br>management unit(s)<br>[40 CFR 265.112(b)(3)] | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-5.</u>      |
| B-6.  | Decontamination and removal of<br>hazardous waste residues<br>[40 CFR 265.112(b)(4) and<br>265.114]       | <u>Y</u>                              | <u>N</u>                        | <u>p. 6</u>                     | <u>See comment I.B-6.</u>      |
| B-7.  | Detailed description of other<br>activities necessary for closure<br>[40 CFR 265.112(b)(5)]               | <u>N/A</u>                            | <u>-</u>                        | <u>-</u>                        | <u>---</u>                     |
| B-8.  | Schedule for closure of each<br>unit and final facility closure<br>[40 CFR 265.112(b)(6) and (7)]         | <u>Y</u>                              | <u>N</u>                        | <u>p. 11</u>                    | <u>See comment I.B-8.</u>      |
| B-9.  | Amendment of closure plan<br>[40 CFR 265.112(c)]  | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-9.</u>      |
| B-10. | Notification of partial and<br>final closure<br>[40 CFR 265.112(d)(1)]                                    | <u>N</u>                              | <u>-</u>                        | <u>-</u>                        | <u>See comment I.B-10.</u>     |

Facility Name LTV Steel Company - Clvd. Works East  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|       |   | Provided<br>(Y/N) or NA | Adequate<br>(Y/N) | Exhibits<br>(Y/N) | References and Comments    |
|-------|---|-------------------------|-------------------|-------------------|----------------------------|
| B-11. | Schedule for beginning closure<br>[40 CFR 265.112(d)(2)]  | <u>N</u>                | <u>-</u>          | <u>-</u>          | <u>See comment I.B-11.</u> |
| B-12. | Wastes treated, removed or<br>disposed of within 90 days<br>and extensions of time periods<br>[40 CFR 265.113(a)] | <u>N</u>                | <u>-</u>          | <u>-</u>          | <u>See comment I.B-12.</u> |
| B-13. | Closure completed within<br>180 days and extensions<br>of time periods<br>[40 CFR 265.113(b)]                     | <u>Y</u>                | <u>Y</u>          | <u>p. 11</u>      | <u>---</u>                 |
| B-14. | Timeframes for demonstrations<br>for extensions [40 CFR 265.113(c)]   | <u>N</u>                | <u>-</u>          | <u>-</u>          | <u>See comment I.B-14.</u> |
| B-15. | Disposal or decontamination of<br>equipment, structures, and soils<br>[40 CFR 265.114]                            | <u>N</u>                | <u>-</u>          | <u>-</u>          | <u>See comment I.B-15.</u> |
| C.    | <u>Certification of Closure</u><br><u>and Survey Plat</u>   |                         |                   |                   |                            |
| C-1.  | Certification of closure<br>[40 CFR 265.115]  | <u>Y</u>                | <u>N</u>          | <u>p. 11</u>      | <u>See comment C-1.</u>    |
| C-2.  | Survey plat<br>[40 CFR 265.116]   | <u>N/A</u>              | <u>-</u>          | <u>-</u>          | <u>---</u>                 |

Facility Name LTV Steel Company - Clvd. Works -ast  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|   | <u>Provided</u><br><u>(Y/N) or NA)</u> | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|---|--|---------------------------------|---------------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>                             |  |                                 |                                 |                                |
| D. <u>Closure Cost Estimate</u>   |  |                                 |                                 |                                |
| D-1. Cost estimate when closure<br>is most expensive<br>[40 CFR 265.142(a)] | <u>Y</u>                               | <u>N</u>                        | <u>p. 12</u>                    | <u>See comment I.D-1.</u>      |
| D-2. Adjustments for inflation<br>[40 CFR 265.142(b)]                       | <u>N</u>                               | <u>-</u>                        | <u>-</u>                        | <u>See comment I.D-2.</u>      |
| D-3. Revisions to closure cost<br>estimates [40 CFR 265.142(c)]             | <u>N</u>                               | <u>-</u>                        | <u>-</u>                        | <u>See comment I.D-3.</u>      |



Facility Name LTV Steel Company - Clvd. Works -ast  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|      |  | Provided<br>(Y/N) or NA) | Adequate<br>(Y/N) | Exhibits<br>(Y/N) | References and Comments |
|------|--|--------------------------|-------------------|-------------------|-------------------------|
| I.   | <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>                                     |                          |                   |                   |                         |
| E.   | <u>Financial Assurance for<br/>Closure [40 CFR 265.143]</u>                      |                          |                   |                   |                         |
| E-1. | Closure trust fund<br>[40 CFR 265.143(a)]  | <u>N</u>                 | <u>-</u>          | <u>-</u>          | <u>See comment I.E.</u> |
| E-2. | Surety bond guaranteeing<br>payment to closure trust fund<br>[40 CFR 265.143(b)] | <u>N</u>                 | <u>-</u>          | <u>-</u>          | <u>See comment I.E.</u> |
| E-3. | Closure letter of credit<br>[40 CFR 265.143(c)]                                  | <u>N</u>                 | <u>-</u>          | <u>-</u>          | <u>See comment I.E.</u> |
| E-4. | Closure insurance<br>[40 CFR 265.143(d)]   | <u>N</u>                 | <u>-</u>          | <u>-</u>          | <u>See comment I.E.</u> |
| E-5. | Financial test and<br>corporate guarantee<br>[40 CFR 265.143(e)]                 | <u>N</u>                 | <u>-</u>          | <u>-</u>          | <u>See comment I.E.</u> |
| E-6. | Multiple financial mechanisms<br>[40 CFR 265.143(f)]                             | <u>N</u>                 | <u>-</u>          | <u>-</u>          | <u>See comment I.E.</u> |
| E-7. | Financial mechanisms for<br>multiple facilities<br>[40 CFR 265.143(g)]           | <u>N</u>                 | <u>-</u>          | <u>-</u>          | <u>See comment I.E.</u> |

Facility Name LTV Steel Company - Clvd. Works East  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|  | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u> |
|--|---------------------------------|---------------------------|---------------------------|--------------------------------|
| I. <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>  |                                 |                           |                           |                                |
| F. <u>Liability Coverage</u>   |                                 |                           |                           |                                |
| F-1. Sudden accidental occurrences<br>[40 CFR 265.147(a)]                                      | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Liability insurance<br>[40 CFR 265.147(a)(1)]  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Financial test or corporate<br>guarantee for liability<br>coverage<br>[40 CFR 265.147(a)(2)] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Letter of credit<br>[40 CFR 265.147(a)(3)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Surety bond<br>[40 CFR 265.147(a)(4)]  | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Trust fund<br>[40 CFR 265.147(a)(5)]   | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |
| • Use of multiple financial<br>mechanisms<br>[40 CFR 265.147(a)(6)]                            | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.F-1.</u>      |

Facility Name LTV Steel Company - Clvd. Works East  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|      |  | Provided<br>(Y/N) or NA) | Adequate<br>(Y/N) | Exhibits<br>(Y/N) | References and Comments |
|------|--|--------------------------|-------------------|-------------------|-------------------------|
| I.   | <u>GENERAL CLOSURE REQUIREMENTS (cont'd)</u>   |                          |                   |                   |                         |
| F-2. | Non-sudden accidental occurrences<br>[40 CFR 265.147(b)]                                       |                          |                   |                   |                         |
|      | • Endorsement or certification<br>[40 CFR 265.147(b)(1)]                                       | <u>N/A</u>               | <u>-</u>          | <u>-</u>          | <u>---</u>              |
|      | • Financial test or corporate<br>guarantee for liability<br>coverage<br>[40 CFR 265.147(b)(2)] | <u>N/A</u>               | <u>-</u>          | <u>-</u>          | <u>---</u>              |
|      | • Letter of credit<br>[40 CFR 265.147(b)(3)]   | <u>N/A</u>               | <u>-</u>          | <u>-</u>          | <u>---</u>              |
|      | • Surety bond<br>[40 CFR 265.147(b)(4)]  | <u>N/A</u>               | <u>-</u>          | <u>-</u>          | <u>---</u>              |
|      | • Trust fund<br>[40 CFR 265.147(b)(5)]   | <u>N/A</u>               | <u>-</u>          | <u>-</u>          | <u>---</u>              |
|      | • Use of multiple financial<br>mechanisms<br>[40 CFR 265.147(b)(6)]                            | <u>N/A</u>               | <u>-</u>          | <u>-</u>          | <u>---</u>              |

Facility Name LTV Steel Company - Clvd. Works East  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|      |   | Provided<br>(Y/N) or NA)                   | Adequate<br>(Y/N) | Exhibits<br>(Y/N)     | References and Comments                   |
|------|---|--|-------------------|-----------------------|---|
| II.  | <u>CLOSURE OF CONTAINER STORAGE AREA</u>  |  |                   |                       |   |
| A.   | <u>Closure Performance Standards</u><br><u>for the Container Storage Area</u><br>[40 CFR 265.111]                   | (This item is addressed under Section I-A) |                   |                       |   |
| B.   | <u>Content of Closure Plan</u>  |  |                   |                       |   |
| B-1. | Detailed description of<br>how the container storage<br>area will be closed<br>[40 CFR 265.112(b)(1)]               | <u>Y</u>                                   | <u>N</u>          | <u>pp. 3-10</u>       | <u>See comments I.B-1, 4, 5, &amp; 6.</u> |
| B-2. | Identification of maximum<br>extent of operation of<br>container storage area<br>[40 CFR 265.112(b)(2)]             | <u>Y</u>                                   | <u>Y</u>          | <u>pp. 3,5,&amp;7</u> | <u></u>                                   |
| B-3. | Estimate of maximum inventory<br>of hazardous waste ever in the<br>container storage area<br>[40 CFR 265.112(b)(3)] | <u>N</u>                                   | <u>-</u>          | <u>-</u>              | <u>See comment I.B-3.</u>                 |

Facility Name LTV Steel Company - Clvd. Works East  
Degreaser Sludge Container  
 I.D. Number OHD004218673

|      |   | <u>Provided<br/>(Y/N) or NA</u> | <u>Adequate<br/>(Y/N)</u> | <u>Exhibits<br/>(Y/N)</u> | <u>References and Comments</u>             |
|------|---|---------------------------------|---------------------------|---------------------------|--|
| B-4. | Detailed description of removal of hazardous waste inventory [40 CFR 265.112(b)(3) and 265.114]                     | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-4.</u>                  |
| B-5. | Identification of and type of off-site hazardous waste management unit(s) [40 CFR 265.112(b)(3)]                    | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See comment I.B-5.</u>                  |
| B-6. | Criteria for determining the extent of decontamination necessary [40 CFR 265.112(b)(4) and 265.114]                 | <u>Y</u>                        | <u>N</u>                  | <u>p. 6</u>               | <u>See comments I.A and I.B-6.</u>         |
| B-7. | Detailed description of decontamination steps [40 CFR 265.112(b)(4) and 265.114]                                    | <u>Y</u>                        | <u>N</u>                  | <u>p. 6</u>               | <u>See comment I.B-6.</u>                  |
| B-8. | Procedures for cleaning equipment and structures and removing contaminated soils [40 CFR 265.112(b)(4) and 265.114] | <u>N</u>                        | <u>-</u>                  | <u>-</u>                  | <u>See cmts. I.A, I.B-6, &amp; I.B-15.</u> |

Facility Name LTV Steel Company - Clvd. Works -dst  
Degreaser Sludge Container  
 I.D. Number 0HD004218673

|       |   | <u>Provided</u><br><u>(Y/N) or NA)</u>                       | <u>Adequate</u><br><u>(Y/N)</u> | <u>Exhibits</u><br><u>(Y/N)</u> | <u>References and Comments</u> |
|-------|---|--|---------------------------------|---------------------------------|--------------------------------|
| B-9.  | Detailed description of removal of hazardous waste residues [40 CFR 265.112(b)(4) and 265.114]                      | <u>Y</u>   | <u>N</u>                        | <u>p. 6</u>                     | <u>See comment I.B-6.</u>      |
| B-10. | Methods for sampling and testing to demonstrate success of decontamination [40 CFR 265.112(b)(4) and 265.114]       | <u>Y</u>   | <u>N</u>                        | <u>p. 8, 9</u>                  | <u>See comment I.B-6.</u>      |
| B-11. | Detailed description of other necessary activities [40 CFR 265.112(b)(5)]   | <u>N/A</u>   | <u>-</u>                        | <u>-</u>                        | <u>-</u>                       |
| B-12. | Detailed schedule for closure of container storage area [40 CFR 265.112(b)(6)]                                      | (This item is addressed under Section I-B-8.)                |                                 |                                 |                                |
| C.    | <u>Closure Cost Estimate, Financial Assurance, and Liability Coverage</u><br>[40 CFR 265.142, 265.143, and 265.147] | (These items are addressed under Sections I-D, I-E, and I-F) |                                 |                                 |                                |

6 MAR 1989

5H-12

Mr. Tom J. Harlan  
Environmental Management Engineer  
LTV Steel Company, Inc.  
Cleveland Works (East)  
3100 E. 45th Street  
Cleveland, OH 44127

RE: Closure Certification  
LTV Steel Company, Inc.  
Cleveland Works (East)  
OHD 004 218 673

Dear Mr. Harlan:

On December 15, 1988, the United States Environmental Protection Agency (U.S. EPA) received a certification of closure activities and a closure report for three hazardous waste storage tanks located at the LTV Cleveland (East) plant in Cleveland, Ohio. These tanks had been used for the storage of spent pickle liquor (K062) at the 98 inch pickle line.

We have reviewed the closure certification, as well as the report describing closure activities, and have found these documents to be acceptable. We are aware that LTV Steel, Inc., is still required to close other hazardous waste management units at the Cleveland plant. Therefore, U.S. EPA cannot release LTV Steel, Inc., from the requirement to maintain financial assurance for closure at Cleveland Works.

Please be advised that acceptance of this closure certification does not release LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984, regarding corrective action for all releases of hazardous waste constituents from any solid waste management unit, regardless of the time at which waste was placed in such units.

Please contact Ms. Francine P. Norling of my staff, at (312) 886-6198, if you have any questions regarding the above.

Sincerely,

Basil G. Constantelos, Director  
Waste Management Division

cc: Tom Crepeau, OEPA  
Ed Kitchen, OEPA  
Kris Coder, OEPA-NEDO

5HR-13:NORLING:pb:02/27/89

Disk No. 7

| ROB. PERMITS | TYP.         | AUTH.             | IL. CHIEF | IN. CHIEF | MI. CHIEF | MN/WI CHIEF | OH. CHIEF        | ADD              | OR ADD           | WMD              |
|--------------|--------------|-------------------|-----------|-----------|-----------|-------------|------------------|------------------|------------------|------------------|
| INIT. DATE   | 3-2-89<br>PB | 7.0. n.<br>3-2-89 |           |           |           |             | 3-2-89<br>3/2/89 | 3-2-89<br>3/2/89 | 3-2-89<br>3/2/89 | 3-2-89<br>3/2/89 |

Kearney/Centaur Division  
A.T. Kearney, Inc.  
P.O. Box 1438  
225 Reinekers Lane  
Alexandria, Virginia 22313  
703 683 7932

Management  
Consultants

**ATKEARNEY**

February 27, 1989

Ms. Pat Vogtman  
Regional Project Officer  
U.S. Environmental Protection Agency  
230 South Dearborn Street  
Chicago, IL 60604

Reference: EPA Contract No. 68-01-7374; Work Assignment No. R25-03-27;  
Closure Reviews for Six Ohio Facilities - Lebanon  
Correctional Institution, LTV Steel Company, Inc.,  
Environmental Processing Services, Bechtel - McLaughlin,  
Inc., Ohio Department of Transportation (Ravenna), and Ohio  
Department of Transportation (New Philadelphia); Project  
Plan

Dear Ms. Vogtman:

Enclosed please find the proposed project plan which you requested for the above-referenced work assignment. This project plan calls for the Kearney Team to conduct completeness and technical reviews of the closure plans for various units at the following six facilities in the State of Ohio:

- o Lebanon Correctional Institution, EPA I.D. No. OHD077427227;
- o LTV Steel Company, Inc., EPA I.D. No. OHD004218673;
- o Environmental Processing Services (Formerly Clark Processing), EPA I.D. No. OHD000608588;
- o Bechtel - McLaughlin, Inc., EPA I.D. No. OHD004182614;
- o Ohio Department of Transportation, Ravenna Facility, EPA I.D. No. OHD980792451; and
- o Ohio Department of Transportation, New Philadelphia Facility, EPA I.D. No. OHD075759175.

The closure plans will be reviewed using the latest EPA "Protocol for Evaluating Interim Status Closure/Post-Closure Plans" (Revised December 1988) to determine compliance with Ohio EPA regulations. The reviews will include Notice of Deficiency comments and a completed checklist for each unit.

All applicable A. T. Kearney Conflict of Interest Avoidance procedures have been adhered to for the proposed firms and staff.



Ms. Pat Vogtman  
U.S. Environmental Protection Agency  
February 27, 1989  
Page 2

Also enclosed is a project plan approval sheet which you should sign and return to James Levin at Kearney/Centaur Division, 225 Reinekers Lane, Third Floor, Alexandria, Virginia 22314.

Please feel free to call me, if you have any questions.

Sincerely,



Arthur Glazer  
Technical Director

---

Enclosure

cc:       A. Pearce, EPA OSW  
          C. Miron, EPA Contracts  
          K. Lee, EPA Region V  
          F. Norling, EPA Region V  
          A. Boseman, EPA Region V  
          B. Swale, EPA Region V  
          R. Nolte, EPA Region V  
          E. Kitchen, Ohio EPA  
          J. Levin  
          D. Bean  
          A. Anderson  
          J. Atchue  
          E. Hillenbrand  
          C. Mooney  
          R. Peebles  
          A. Pustelnik  
          D. Sokol  
          D. Rhodes  
          M. Ritter  
          W. Rohrer, DPRA

EPA Contract No. 68-01-7374  
Work Assignment No. R25-03-27  
Closure Plan Reviews for  
Six Ohio Facilities

Revision 0  
February 27, 1989

Regional Project Plan Approval

I have reviewed the attached project plan and find it meets our criteria for technical accuracy. The projected cost and hour estimates are also acceptable.

APPROVAL:

\_\_\_\_\_  
EPA Regional Project Officer

\_\_\_\_\_  
Date

CONCURRENCE:

\_\_\_\_\_  
A.T. Kearney Program Director

\_\_\_\_\_  
Date

cc: EPA Headquarters Project Officer

CLOSURE PLAN REVIEWS FOR  
SIX OHIO FACILITIES

WORK TO BE PERFORMED

The Kearney Team will perform completeness/technical reviews of the closure plans for various units at six facilities in the State of Ohio:

- o Lebanon Correctional Institution, EPA I.D. No. OHD077427227;
- o LTV Steel Company, Inc., EPA I.D. No. OHD004218673;
- o Environmental Processing Services (Formerly Clark Processing), EPA I.D. No. OHD000608588;
- o Bechtel - McLaughlin, Inc., EPA I.D. No. OHD004182614;
- o Ohio Department of Transportation, Ravenna Facility, EPA I.D. No. OHD980792451; and
- o Ohio Department of Transportation, New Philadelphia Facility, EPA I.D. No. OHD075759175.

The reviews will include preparation of Notice of Deficiency (NOD) comments and a completed checklist for each unit. EPA's latest "Protocol for Evaluating Interim Status Closure/Post-Closure Plans" will be used to determine compliance with Ohio EPA regulations.

PRIMARY INTENDED USE

The deficiency comments will be used by the State of Ohio EPA and EPA Region V staff to determine the adequacy of the closure plans.

PROJECT TASKS

The project will consist of the following tasks:

Task 01 - Prepare a project plan. This will include all preliminary contacts required for the preparation of the project plan.

Task 02 - Conduct a completeness/technical review of the closure plan for the drum storage area at the Lebanon Correctional Institution. Complete the appropriate checklists and prepare detailed NOD comments describing the plan's deficiencies.

Task 03 - Conduct a completeness/technical review of the closure plans for the four tanks and the degreaser sludge container at the LTV Steel facility. Complete the appropriate checklists and prepare detailed NOD comments describing each plan's deficiencies.

Task 04 - Conduct a completeness/technical review of the closure plan for the drum storage area, five tanks, and a spill area in the gravel parking lot at the Environmental Processing Services facility. Complete the appropriate checklists and prepare detailed NOD comments describing the plan's deficiencies.

Task 05 - Conduct a completeness/technical review of the closure plan for the drum storage area, a tank system, and a sludge dumpster at the Bechtel - McLaughlin facility. Complete the appropriate checklists and prepare detailed NOD comments describing the plan's deficiencies.

Task 06 - Conduct a completeness/technical review of the closure plan for the two drum storage areas and a spill area at the Ohio Department of Transportation - Ravenna facility. Complete the appropriate checklists and prepare detailed NOD comments describing the plan's deficiencies.

Task 07 - Conduct a completeness/technical review of the closure plan for the two drum storage areas and a spill area at the Ohio Department of Transportation - New Philadelphia facility. Complete the appropriate checklists and prepare detailed NOD comments describing the plan's deficiencies.

Task 98 - Perform a quality control review of draft deliverables.

Task 99 - Provide management oversight for the project.

#### HEALTH AND SAFETY PLAN

No site visit is associated with this project; therefore, a health and safety plan is not required.

#### QUALITY CONTROL PLAN

The Work Assignment Manager will conduct milestone checks on each task. In addition, draft project deliverables will be reviewed by senior technical staff members of DPRA Incorporated to ensure technical quality and consistency with EPA and State of Ohio regulations and policy.

#### STAFFING AND MANAGEMENT

Arthur Glazer of Kearney/Centaur will serve as both Technical Director and Work Assignment Manager (WAM). Individual staff responsibilities are shown in Attachment I. The proposed staffing and task assignments for the project are shown in Attachment II. Hour allocations are shown for each task.

All applicable Conflict of Interest Avoidance (COI) procedures have been adhered to for the proposed firms and staffs.

EPA Contract No. 68-01-7374  
Work Assignment No. R25-03-27  
Closure Plan Reviews for  
Six Ohio Facilities

Revision 0  
February 27, 1989

- 3 -

#### SCHEDULE

The project will be conducted according to the schedule shown in Attachment III.

#### COST ESTIMATE

The estimated cost for completing this project is included as Attachment IV.

---

#### PERFORMANCE EVALUATION CRITERIA

The measures for evaluation of work assignment performance are described for each of the following performance criteria: user satisfaction, technical quality, editorial quality, conformity to schedule, conformity to budget, and communication. Measures for each of these criteria are discussed and agreed upon by the RPO and the WAM during the assignment planning process. To the extent possible, clear, quantitative measures should be established.

EPA Contract No. 68-01-7374  
Work Assignment No. R25-03-27  
Closure Plan Reviews for  
Six Ohio Facilities

Revision 0  
February 27, 1989

ATTACHMENT I  
STAFF RESPONSIBILITY CHART

| STAFF          | ROLE   | AREAS OF RESPONSIBILITY  |
|----------------|--|--|
| A. Glazer      | Technical Director;<br>Work Assignment Manager | Project management   |
| D. Rhodes      | Technical Assistant                            | Administrative support   |
| A. Anderson    | Regional Liaison                               | Initiate work, monitor<br>project planning and<br>implementation, conduct<br>project performance<br>evaluation |
| J. Atchue      | Technical Reviewer                             | Review of closure plan for<br>Lebanon Correctional<br>Institution  |
| E. Hillenbrand | Technical Reviewer                             | Review of closure plan for<br>LTV Steel Company  |
| C. Mooney      | Technical Reviewer                             | Review of closure plan for<br>Environmental Processing<br>Services   |
| R. Peebles     | Technical Reviewer                             | Review of closure plan for<br>Bechtel - McLaughlin   |
| A. Pustelnik   | Technical Reviewer                             | Review of closure plan for<br>Ohio Department of<br>Transportation (Ravenna)                                   |
| D. Sokol       | Technical Reviewer                             | Review of closure plan for<br>Ohio Department of<br>Transportation (New<br>Philadelphia)                       |
| S. Smith       | Quality Control Reviewer                       | Quality control review   |
| S. Heikkila    | Quality Control Reviewer                       | Quality control review   |

EPA Contract No. 68-01-7374  
 Work Assignment No. R25-03-27  
 Closure Plan Reviews for  
 Six Ohio Facilities

Revision 0  
 February 27, 1989

# ATTACHMENT II

## STAFFING

| STAFF   |                    |                                 | TASK |    |    |    |    |    |    |                  |                  |       |  |
|---|--------------------|---------------------------------|------|----|----|----|----|----|----|------------------|------------------|-------|--|
| Name  | Firm <sup>1/</sup> | Labor <sup>2/</sup><br>Category | 01   | 02 | 03 | 04 | 05 | 06 | 07 | 98 <sup>3/</sup> | 99 <sup>4/</sup> | TOTAL |  |
| Technical<br>Director and<br>Work Assign-<br>ment Manager |                    |                                 |      |    |    |    |    |    |    |                  |                  |       |  |
| A. Glazer   | ATK(K/C)           | P-4                             | 4    | -  | -  | -  | -  | -  | -  | -                | 24               | 28    |  |
| Staffing  |                    |                                 |      |    |    |    |    |    |    |                  |                  |       |  |
| A. Anderson   | ATK                | P-4                             | 4    | -  | -  | -  | -  | -  | -  | -                | 4                | 8     |  |
| E. Hillenbrand  | ATK                | P-4                             | -    | -  | 40 | -  | -  | -  | -  | -                | -                | 40    |  |
| C. Mooney   | ATK                | P-2                             | -    | -  | -  | 48 | -  | -  | -  | -                | -                | 48    |  |
| R. Peebles  | ATK                | P-4                             | -    | -  | -  | -  | 48 | -  | -  | -                | -                | 48    |  |
| Tech. Support   | ATK                |                                 | -    | -  | 10 | 12 | 12 | -  | -  | -                | 2                | 36    |  |
| D. Rhodes   | ATK(KC)            | T-2                             | 6    | -  | -  | -  | -  | -  | -  | -                | 18               | 24    |  |
| J. Atchue   | ATK(KC)            | P-3                             | -    | 32 | -  | -  | -  | -  | -  | -                | -                | 32    |  |
| A. Pustelnik  | ATK(KC)            | P-4                             | -    | -  | -  | -  | -  | 48 | -  | -                | -                | 48    |  |
| D. Sokol  | ATK(KC)            | P-4                             | -    | -  | -  | -  | -  | -  | 48 | -                | -                | 48    |  |
| Tech. Support   | ATK(KC)            |                                 | -    | 8  | -  | -  | -  | 12 | 12 | -                | -                | 32    |  |
| Quality Control   |                    |                                 |      |    |    |    |    |    |    |                  |                  |       |  |
| S. Smith  | DPRA               | P-3                             | -    | -  | -  | -  | -  | -  | -  | 30               | -                | 30    |  |
| S. Heikkila   | DPRA               | P-3                             | -    | -  | -  | -  | -  | -  | -  | 30               | -                | 30    |  |
| Tech. Support   | DPRA               |                                 | -    | -  | -  | -  | -  | -  | -  | 18               | -                | 18    |  |
| TOTALS  |                    |                                 | 14   | 40 | 50 | 60 | 60 | 60 | 60 | 78               | 48               | 470   |  |

- 1/ ATK = A. T. Kearney, Inc.  
 ATK(K/C) = Kearney/Centaur, a Division of A.T. Kearney, Inc.  
 DPRA = DPRA Incorporated
- 2/ Labor Category (e.g. P3, P4)
- 3/ Task 98 - Quality Control
- 4/ Task 99 - Project Management

EPA Contract No. 68-01-7374  
Work Assignment No. R25-03-27  
Closure Plan Reviews for  
Six Ohio Facilities

Revision 0  
February 27, 1989

ATTACHMENT III

SCHEDULE

| <u>Task(s)</u> | <u>Milestone</u> | <u>Project Tasks</u>                                      | <u>Milestone Dates</u>              |
|----------------|------------------|---|-------------------------------------|
| 01             | 01               | Prepare project plan                                      | 02/27/89                            |
| 02-07          | 03               | All draft deliverables submitted to QC by                 | 03/10/89                            |
| 98             | 04               | All QC comments submitted to initial authors by           | 03/17/89                            |
| 02-07          | 05               | All final deliverables submitted to Technical Director by | 03/22/89                            |
| 02-07          | 06               | All final deliverables due to EPA by                      | 03/29/89                            |
| 99             | 07               | Project management  | In accordance with above milestones |



EPA Contract No. 68-01-7374  
Work Assignment No. R25-03-27  
Closure Plan Reviews for  
Six Ohio Facilities

Revision 0  
February 27, 1989

ATTACHMENT IV

ESTIMATED COSTS

| <u>A.T. Kearney, Inc.</u>   | <u>Hours</u> | <u>Cost</u>     |
|-----------------------------|--------------|-----------------|
| Labor                       | 392          | \$23,286        |
| Other Direct Costs          |              | <u>1,175</u>    |
| Subtotal                    |              | \$24,461        |
| <hr/>                       |              |                 |
| <u>DPRA Incorporated</u>    |              |                 |
| Labor                       | 78           | \$ 3,205        |
| Other Direct Costs          |              | <u>450</u>      |
| Subtotal                    |              | \$ 3,655        |
|                             | SUBTOTAL     | \$28,116        |
| <br>                        |              |                 |
| <u>A.T. Kearney, Inc.</u>   |              |                 |
| Fee - 3% Base               |              | \$ 843          |
| 4-3/4% Award                |              | <u>1,336</u>    |
| Subtotal                    |              | \$ 2,179        |
| <u>TOTAL ESTIMATED COST</u> | <u>470</u>   | <u>\$30,295</u> |



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149



Richard F. Celeste  
Governor

February 14, 1989

Re: LTV Steel Company, Inc.  
US EPA ID No.: OHD004218673  
Ohio Permit No.: 02-18-0186  
Completion of Closure Process

LTV Steel Company, Inc.  
Attn: R. L. Nemeth  
3100 E. 45th Street  
Cleveland, Ohio 44127

RECEIVED  
FEB 21 1989

RCRA-IMS  
U.S. EPA, REGION V

Dear Mr. Nemeth:

According to our records, all necessary activities have been completed at your facility regarding closure of the SPL tanks and containment area for the 98 inch pickling line. Therefore, this letter is to inform you that, based on the information you had submitted and an investigation by Agency staff, you have gone through formal closure and will maintain the status of a generator storage facility.

You should continue to use the identification number assigned to you by the U.S. EPA for purposes of compliance with the Ohio EPA manifest, recordkeeping and reporting requirements for generators and transporters of hazardous waste as appropriate.

Should you have any questions concerning your current status, please contact the Ohio EPA, Division of Solid and Hazardous Waste Management, Attn: Patrick Willoughby, 1800 WaterMark Drive, Columbus, Ohio 43266-0149, telephone: (614) 644-2934.

If you intend to no longer pursue your Ohio Hazardous Waste Installation and Operation Permit and wish to withdraw your permit, the following information should be forwarded to Ohio EPA within thirty (30) days:

1. A formal request for withdrawal signed by an authorized representative according to Rule 3745-50-42(A)-(D) of the Ohio Administrative Code (Attachment 1) including a full explanation of your reasons for withdrawal of your application; and,
2. A certification statement signed by the same authorized representative of your facility (Attachment 2).

Upon receipt of the above items, Ohio EPA will review your submission along with any facility inspection report(s). If no additional information is necessary, your permit withdrawal request will be finalized.

LTV Steel Company, Inc.  
February 14, 1989  
Page 2

Please forward the above information to: Ohio EPA, Division of Solid and Hazardous Waste Management, Attn: Patrick E. Willoughby, Data Management Section, 1800 WaterMark Drive, Columbus, Ohio 43266-0149.

Please note that you must notify U.S. EPA of your change in status, if you have not already done so.

Should you have further questions concerning this procedure, please call Patrick Willoughby, Data Management Section at (614) 644-2934.

Very truly yours,



Thomas E. Crepeau, Manager  
Data Management Section  
Division of Solid and Hazardous Waste Management

TC/PW/ds

cc: Lisa Pierard, US EPA, Region V  
Hazardous Waste Facility Board  
Paul Vandermeer, TA&ES, DSHWM  
Dave Sholtis, RCRA Enforcement, DSHWM  
Greg Taylor, NEDO, DSHWM  
File

2006R/35-36



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149

Francine



January 11, 1989

Re: LTV Steel Company, Inc.  
Cleveland Works East  
US EPA ID No.: OHD004218673  
Ohio Permit No.: 02-18-0186  
Partial Closure Plan

Richard F. Celeste  
Governor

LTV Steel Company, Inc., Cleveland Works East  
Attn: Larry Szuhay  
3100 E. 45th Street  
Cleveland, Ohio 44127

Dear Sir:

A public notice acknowledging the Ohio EPA's receipt of a partial closure plan for LTV Steel Company, Inc., Cleveland Works East, Cleveland, Ohio appeared the week of January 2, 1989 in the Plain Dealer, Cleveland, Ohio. The Director of the Ohio EPA will act upon the partial closure plan request following the close of the public comment period, February 8, 1989.

Copies of the partial closure plan will be available for public review at the Cleveland Public Library, 325 Superior Avenue, Cleveland, Ohio 44114 and the Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Please contact me at (614) 644-2934, if you have any questions concerning this matter.

Very truly yours,

Thomas E. Crepeau, Manager  
Data Management Section  
Division of Solid & Hazardous Waste Management

TEC/dhs

cc: Lisa Pierard, U.S. EPA, Region V  
Randy Meyer, OEPA, DSHWM, TA&ES  
Greg Taylor, OEPA, DSHWM, NEDO

2291R(2)

PUBLIC NOTICE

Cuyahoga County

RECEIPT OF HAZARDOUS WASTE PARTIAL CLOSURE PLAN

For: LTV Steel Company, Inc., Cleveland Works East, 3100 E. 45th Street, Cleveland, Ohio 44127, U.S. EPA ID No.: OHD004218673, Ohio Permit No.: 02-18-0186. The Ohio Environmental Protection Agency (Ohio EPA) is hereby giving notice of the receipt of a Hazardous Waste Facility Partial Closure Plan involving an electroplate SPL storage tank area for the above referenced facility.

Copies of the facility's partial Closure Plan will be available for public review at the Cleveland Public Library, 325 Superior Avenue, Cleveland, Ohio 44114 and the Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Comments concerning the partial Closure Plan should be submitted before February 8, 1989 to: Ohio EPA, Thomas E. Crepeau, Div. of Solid & Hazardous Waste Mgmt., Data Management Section, P.O. Box 1049, 1800 WaterMark Drive, Columbus, Ohio 43266-0149.



LTV Steel Company

CERTIFIED MAIL, RETURN RECEIPT REQUESTED

LTV

December 8, 1988

RECEIVED

DEC 02 1988

Mr. Thomas Crepeau  
Ohio EPA

Division of Solid and Hazardous Waste Management  
Program Planning and Management Section

P.O. Box 1049

Columbus, OH 43266-0149

U.S. EPA, REGION V  
SWB - PMS

Mr. Gregory Taylor  
Ohio EPA

North East District Office  
2110 East Aurora Road  
Twinsburg, OH 44087

RECEIVED

DEC 15 1988

OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

Mr. George Hamper, Chief  
Waste Management Division  
Technical Programs Section  
Ohio Unit

USEPA  
Region V, 5HS-13  
230 South Dearborn Street  
Chicago, IL 60604

Re: Closure Certification  
LTV Steel Company, Inc.  
Cleveland Works (East)  
OHD 004 218 673, 02-18-0186  
98" Pickle Line - Spent Pickle Liquor Storage Tanks

Gentlemen:

Enclosed are executed copies of the above closure certification and final report of closure activity. Copies are being distributed as follows: OEPA - 3 copies, NEDO - 1 copy, and Region V - 1 copy. Please call if you require additional information.

Sincerely,

*T. J. Harlan*

T. J. Harlan  
Environmental Management Engineer

TJH/dcr/4551a

Enclosures

cc: R. L. Nemeth (w/attachment)

L. A. Szuhay " "

T. A. Zalenski " "

LTV Steel Company

LTV

October 3, 1988

U.S. EPA  
Region V  
230 South Dearborn Street  
Chicago, IL 60604

Attn: ✓ Ms. Francine P. Norling, 5HS-13  
Environmental Scientist

Ohio EPA  
Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087

Attn: Mr. Kris Coder  
Environmental Scientist  
Division of Solid & Hazardous Waste

Re: LTV Steel Company  
Cleveland Works (East)  
OHD 004218673  
HWFB Permit 02-18-0186  
Closure Plans

RECEIVED  
OCT 6 1988  
OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

Dear Ms. Norling and Mr. Koder:

Enclosed for your review and approval are copies (USEPA-2; Ohio EPA-3) of closure plans for the following units at the above referenced facility:

- 1) S02 - 60" Electroplating Line Spent Pickle Liquor Storage Tanks
- 2) S02 - 84" Pickle Line Spent Pickle Liquor Storage Tanks
- 3) S01 - Electric Repair Shop Degreaser Sludge Storage Container

These units are to be converted to less than 90 day accumulation units after closure and will remain in operation for the foreseeable future.

Note that LTV Steel had previously received closure plan approvals from USEPA and Ohio EPA on another unit at the facility as follows:

- 4) S02 - 98" Pickle Line Spent Pickle Liquor Storage Tanks

In fact, closure of this unit is almost complete at this writing. The closure certifications will be submitted as required.

Finally, note that LTV Steel has also applied for withdrawal of the RCRA permit for the following unit:

- 5) S02 - Coal Tar Decanter Sludge Recycling Tank

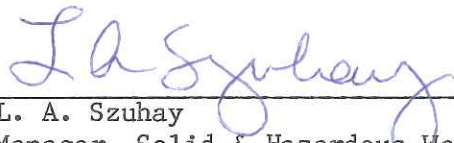
Francine P. Norling/Kris Coder  
October 3, 1988  
Page 2

Attached is a copy of the correspondence dated July 7, 1988 to USEPA and Ohio EPA regarding this unit. LTV Steel believes that this tank has never been a regulated unit for the reasons stated therein.

LTV Steel maintains that, with the submission of these three closure plans and previous submissions, the existing units at the above referenced facility are now adequately addressed with respect to the November 8, 1988 requirements of the Hazardous and Solid Waste Amendments of 1984.

Please contact the writer should you wish to discuss anything regarding the above referenced facility.

Sincerely,

  
\_\_\_\_\_  
L. A. Szuhay  
Manager, Solid & Hazardous Waste  
Environmental Control

IAS/dcr/4394a

Attachment

cc: Burgess & Niple, LTD (w/o attachments)  
Attn: Mr. Thomas Ashton, PE

Ohio EPA (w/o attachments)  
Columbus, OH  
Attn: Mr. Ed Lim

Ohio EPA (w/o attachments)  
Columbus, OH  
Attn: Mr. Tom Crepeau



LTV Steel Company



RECEIVED  
AUG 22 1988  
OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

August 18, 1988

Mr. Gregory Taylor  
Division of Solid and Hazardous Waste Management  
Ohio Environmental Protection Agency  
Northeast District Office  
2110 East Aurora Road  
Twinsburg, Ohio 44087

Re: Partial Closure Plan  
98" Mill Pickle Liquor Tanks  
LTV Steel Company, Inc.  
Cleveland, East  
OHD 004218673

Dear Mr. Taylor:

LTV Steel plans to begin the above closure work in accordance with Ohio EPA approval (August 19, 1987) and Region V approval (June 9, 1988). Mobilization is scheduled for August 23, with the project expected to take several weeks. Burgess & Niple, Limited will be on hand during the closure, and will certify the final results. Please call if you have any questions or if you wish to schedule a visit during the closure.

Very truly yours,

Tom J. Harlan, Jr.  
Environmental Management Engineer  
Environmental Control

TJH/rh  
4283a

cc: Ms. Francine P. Norling  
U.S. EPA Region V  
Waste Management Division 5H-12  
230 South Dearborn St.  
Chicago, Illinois 60604

LTV Steel Company



July 7, 1988

Ohio Environmental Protection Agency  
Division of Solid and Hazardous Waste Management  
1800 WaterMark Drive  
Columbus, Ohio 43266-0149

Attn: Mr. Thomas Crepeau  
DSHWM

Re: LTV Steel Company, Inc.  
Cleveland (East)  
OHD 004218673 (Permit 02-18-0186)  
Permit Change Request

RECEIVED  
JUL 18 1988

OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

Dear Mr. Crepeau:

Pursuant to rule 3745-50-51 of the Ohio Administrative Code, LTV Steel hereby requests a permit change request to revise the permit for the subject facility. Specifically, LTV Steel requests that the tank storage unit (S02) used in the recycling of tar decanter sludge be deleted from the existing permit.

The following is a description of the recycling activity:

LTV Steel operates coke plants at its Cleveland Works-East. Each coke plant collects tar decanter sludge (K087) in dumpsters placed on concrete pads directly under the tar decanters. The dumpsters, properly labeled and inspected, are emptied daily into what is called the Coal Tar Sludge Mill Tank (S02 unit). The Coal Tar Sludge Mill Tank is simply a concrete tank which feeds the fluid sludge through a rotary mill onto the belt feeding coal to the coke ovens. The tar decanter sludge is thus recycled directly back to the coke ovens.

The recycling of tar decanter sludge through the coke ovens is consistent with RCRA regulation at 40 CFR 261.2(e)(1)(iii) and the corresponding Ohio regulation at 3745-51-02(E)(1)(c). This regulation identifies materials that are not solid wastes when recycled by being:

1. Returned to the original process from which they are generated without first being reclaimed. There are no residues generated in this recycling process. All of the material is recycled; therefore, there is no reclamation. The material is returned directly back to the coke ovens. The primary or original process can be described as the coke ovens.
2. The material must be returned as a substitute for raw material feedstock. The material is a substitute for the raw material (coal) in the generation of coke, and is returned in the same "stream" as that material. Furthermore, only a small percentage of the total raw material stream will be recycled material.

3. The process must use raw materials as principal feedstock. "Secondary materials" are not used to generate coke. Primary raw materials are used as the principal feedstock to produce coke.

The preamble to the January 4, 1985 promulgation for recycling requirements specifies that "sham recycling" applies to the recycling of "secondary materials used to make new products or used as a substitute for commercial products." LTV Steel has, therefore, applied the following sham recycling indicators (50 FR 638) to the subject process:

1. The activity is not recycling but surrogate disposal. The materials recycled are chemically identical to the materials needed and currently used in the production of coke. These are not surrogate materials or surrogate disposal.
2. Used in excess of the amount necessary for operating a process. There is no excess use; all recycled materials will be effective in producing a useful product.
3. The materials are not as effective as what they are replacing. Both the tar materials and carbon materials from the recycled secondary materials will be as effective as the materials from the original process.
4. Absence of records regarding the recycling transaction. Specific records are maintained for each gallon of secondary material recycled.
5. Not handled in a manner consistent with use as raw materials. The materials are returned to the coke batteries. There are no materials "lost" to the environment.

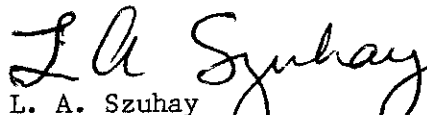
When recycled, coke and coal tar from the iron and steel industry is not subject to regulation under Parts 262 through 266 or Part 270 per 40 CFR 261.6(a)(3)(vii) (and analogous Ohio Regulations).

Since the recycling activity involves materials that are not solid wastes, LTV Steel respectfully requests that the tank unit (S02) used for the recycling of tar decanter sludge be deleted from the RCRA permit.

Finally, note that Ohio EPA reviewed the recycling of K087 at the LTV Steel Company, Inc. Warren Plant, and approved a similar recycling plan in a letter dated September 9, 1986. I trust that this information is sufficient for evaluation of the tar decanter sludge recycling activities at the Cleveland East plant.

Should you have any questions or require anything additional, please contact me.

Sincerely,



L. A. Szuhay  
Manager-Solid and Hazardous Waste  
Environmental Control

IAS/fh  
Enclosure  
cc: (next page)

cc: Ms. Francine Norling ✓  
U.S. EPA Region V, Chicago

Mr. Kris Coder  
Ohio EPA, NEDO

Mr. Ed Lim  
Ohio EPA, Columbus

4155a

LTV Steel Company  
Cleveland (OH) Works  
OHD 004218673  
Permit 02-18-0186

Certification Statement

I certify under penalty of law that the Cleveland Works' tar decanter sludge tank storage unit (S02) has been used for recycling activity since November 17, 1980. Based upon my inquiry of the person or persons who manage the facility, or those persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

W G Wiley, Jr.  
W. G. Wiley, Jr.

Vice President-Flat Rolled & Bar Products  
Title

7/11/88  
Date

LTV Steel Company



July 6, 1988

U.S. Environmental Protection Agency  
Region V  
230 S. Dearborn Street  
Chicago, Illinois 60604

Attn: Mr. William E. Munro, 5 HS-13

Re: LTV Steel Company  
Cleveland Works - East  
OHD 004218673

RECEIVED  
JUL 08 1988

U.S. EPA, REGION V  
WASTE MANAGEMENT DIVISION  
OFFICE OF THE DIRECTOR

Dear Mr. Munro:

This letter is in response to your Request for Part B Post-Closure Permit Application dated June 27, 1988 and confirms the telephone conversations with Mr. Robert Swale and Ms. Francine Norling of your staff.

LTV Steel has never owned or operated a RCRA land disposal unit at the above referenced facility. In fact, the only RCRA units existing at Cleveland Works-East (OHD 004218673) are storage tanks (S02) and a storage container (S01).

Please contact me if you have any questions or require anything additional.

Sincerely,

A handwritten signature in black ink, appearing to read "L. A. Szuhay". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

L. A. Szuhay  
Manager-Solid and Hazardous Waste  
Environmental Control

LAS/fh

Attachment

cc: Ms. Francine Norling  
U.S. EPA Region V, Chicago

Mr. Ed Lim  
Ohio EPA, Columbus

4152a



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

27 JUN 1988

REPLY TO THE ATTENTION OF:

5HS-13

CERTIFIED MAIL  
RETURNED RECEIPT REQUESTED

L. Aguiar  
Superintendent Environmental Control  
LTV Steel Company  
3100 E. 45th Street  
Cleveland, Ohio 44127

RE: Part B Post-Closure Permit Application  
LTV Steel Company  
OHD 004218673

Dear Mr. Aguiar:

According to our records, your facility is subject to the interim status requirements under Section 3005(e) of the Resource Conservation and Recovery Act (RCRA) as a hazardous waste management facility. Specifically, our records indicate that you submitted a closure plan for your hazardous waste management unit(s), involving closure as a landfill, for approval by the United States Environmental Protection Agency (U.S. EPA). All regulations referred to below are from 40 Code of Federal Regulations (40 CFR).

Any owner/operator of a hazardous waste disposal unit that closes after January 26, 1983, without obtaining a RCRA permit, is required by §270.1(c) to have a permit for any applicable post-closure care period. The facility is responsible for complying with the interim status post-closure requirements of §265.117 through §265.120. In addition, per §264.90(a), as modified by RCRA Section 3005(i), a land disposal unit that receives hazardous waste after July 26, 1982, is a regulated unit and is subject to Part 264 post-closure requirements, including Subpart F, which addresses groundwater protection.

Under the authority of §270.10(e)(4), this is a formal request for submittal of Part B of the permit application for the above-referenced facility, covering specifically the post-closure requirements. If you submitted a Part B application prior to your decision to close the regulated units, then you may revise your Part B application to meet the post-closure requirements rather than the operating standards.

RECEIVED

JUN 30 1988

ENVIRONMENTAL CONTROL

40 CFR §270.14(a) establishes the information requirements for a RCRA Part B permit. However, because of the inherent differences between an operating permit and a permit covering only post-closure activities, some application requirements in §270.14 are not applicable for a post-closure permit. Your facility is required to submit information in the Part B application that is relevant to post-closure care activities. Although informational requirements may be dependent upon site-specific conditions, at a minimum, it should include:

- ° A copy of the post-closure inspection schedule [§270.14(b)(5)];
- ° Floodplain information [§270.14(b)(11)(iii - iv)];
- ° A copy of the post-closure plan [§270.14(b)(13)];
- ° Documentation of the notice in deed or an appropriate alternative instrument [§270.14(b)(14)];
- ° Cost estimate for post-closure and post-closure financial mechanism [§270.14(b)(16)];
- ° A copy of the State financial instrument, if appropriate [§270.14(b)(18)];
- ° Groundwater data and information demonstrating compliance with requirements for detection monitoring, compliance monitoring and corrective action, as applicable [§270.14(c)];
- ° Information on solid waste management units and releases from those units [§264.101];
- ° Financial responsibility for corrective action (if applicable); and
- ° For landfills and surface impoundments, exposure information [§270.10(j)].

As stated above, this list represents the minimum information that needs to be included in the permit application. In some cases, further information may be needed depending on the nature of the facility, waste characteristics and other factors. Please refer to the enclosed RCRA post-closure permit application checklist to help you in preparing a comprehensive and complete permit application. Should you have any questions or concerns in preparing the application, please contact Mr. Robert Swale of my staff, at (312) 886-6591.

Please be reminded that submission of the permit application must be made by November 8, 1988. Upon completion of the application, please send two copies to the U.S. EPA and three copies to the Ohio Environmental Protection Agency.



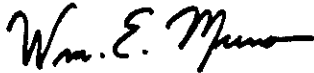
Please number each page of the application uniquely, including all attachments (maps, specifications, etc.). A certification statement identical to the one stated in 40 CFR §270.11(d) must accompany each application and all additional submittals. Send two copies of the application to the following address:

RCRA ACTIVITIES  
Post-Closure Permit Application  
U.S. EPA, Region V  
Post Office Box A-3587  
Chicago, Illinois 60604

Send three copies to: Thomas Crepeau  
Ohio Environmental Protection Agency  
Division of Solid & Hazardous Waste Management  
Post Office Box 1049  
Columbus, Ohio 43266-1049

The U.S. EPA looks forward to working with you toward fulfilling the above request. Again, should you have any questions concerning the above matter, please contact us for assistance.

Sincerely,



William E. Muno  
Acting Associate Division Director  
Office of RCRA

Enclosure: RCRA Post-Closure Permt Application Checklist

cc: Paul Flannigan, OEPA  
District Office Manager, OEPA  
Ed Lim, OEPA

LTV Steel Company



June 14, 1988

Ohio Environmental Protection Agency  
P.O. Box 1049  
1800 WaterMark Drive  
Columbus, Ohio 43266-0149

Attn: Mr. Thomas Crepeau, DSHWM

Re: Partial Closure Plan Approvals  
LTV Steel Company, Inc.  
Cleveland-East  
OHD 004 218 673

RECEIVED  
JUN 17 1988  
OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

JUN 20 1988

Dear Mr. Crepeau:

U. S. EPA, REGION V  
SWB — PMS

Attached are copies of the U.S. EPA and OEPA approvals for a unit (98" mill spent pickle liquor tanks (3)) at the above-referenced facility. The U.S. EPA approval is dated June 9, 1988.

The closure schedule as submitted (attached) and approved by both agencies is such that certification by an independent professional engineer is required within 180 days of closure plan approval. LTV Steel has calculated this date to be December 6, 1988 which is 180 days after both approvals were granted.

Please contact me should you require anything additional.

Sincerely,

*Larry Syuhay*  
L. A. Syuhay

Manager, Solid and Hazardous Waste

IAS/dh

Attachments

2244b

cc: Mr. Kris Coder  
OEPA-NEDO

✓ Ms. Francine Norling  
U.S. EPA-Region V



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

RECEIVED  
JUN 13 1988  
ENVIRONMENTAL CONTROL

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL #P707 061 654  
RETURN RECEIPT REQUESTED

9 JUN 1988

5H-12

T. J. Harlan, Jr.  
Corporate Environmental Control  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

RE: Partial Closure Plan  
LTV Steel Company, Incorporated  
Cleveland Works (East)  
OHD 004 218 673

Dear Mr. Harlan:

This letter is in reference to the partial closure plan for 3 spent pickle liquor tanks located at the LTV Steel Cleveland Works (East) in Cleveland, Ohio. The closure plan for these units was submitted to the United States Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) in January 1987. The plan was public noticed by the OEPA in July 1987.

The OEPA approved the closure plan, subject to specific conditions, in a letter dated August 19, 1987. The U.S. EPA hereby approves the closure plan, as amended by the OEPA letter of August 19, 1987, provided that the following additional conditions are met:


1. The sampling procedures on Page 8, Section IV.A ("Sample Collection") shall be carried out as follows:
  - ° Each composite sample of decontamination rinse solution referred to in this section shall be derived from at least 4 grab samples.
2. The decontamination or "clean" standard for the inlet pipes, tanks, and containment facilities stated on Pages 8 and 9 shall be revised as follows:
  - ° The inlet pipes, tanks, and containment facilities will be considered adequately decontaminated if: a) concentrations of chromium and lead in samples of the final rinsewater taken after cleaning out each pipe, tank, and diked area do not exceed concentrations of chromium and lead in the clean rinse solution used to decontaminate the tanks and associated structures. To establish this decontamination standard, a composite sample consisting of at least 4 grab samples shall be taken from the rinse solution before it is used for decontamination. This sample shall be analyzed for chromium and lead, using the test methods listed in Section IV.B of the closure plan; and b) pH of the rinse water is between 6 and 9. If analyses indicate that these limits are not met, all decontamination steps shall be repeated until the limits are met.

If LTV cannot achieve complete decontamination as described above after 3 rinsings of the tanks and associated structures, LTV may propose alternate levels of chromium and lead to be used to measure the completion of decontamination efforts. U.S. EPA shall review and approve such levels before LTV can certify clean closure. Such levels shall be proposed to U.S. EPA within 45 days of LTV's determination that such levels are needed.

Please be advised that approval of this closure plan does not release LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984, regarding corrective action for all releases of hazardous waste constituents from any solid waste management unit, regardless of the time at which waste was placed in such units.

Please contact Ms. Francine P. Norling of my staff, at (312) 886-6198, if you have any questions regarding the above.

Sincerely,

  
Basil G. Constantelos, Director  
Waste Management Division

cc: L. A. Szuhay, LTV Company  
Tom Crepeau, OEPA  
Ed Kitchen, OEPA  
Kris Coder, OEPA-NEDO



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149



Richard F. Celeste  
Governor

CERTIFIED MAIL

August 19, 1987

Re: CLOSURE PLAN  
LTV STEEL COMPANY  
CLEVELAND WORKS (EAST)  
OHD004218673, 02-18-0186

Mr. T.J. Harlan, Jr.  
Corporate Environmental Department  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Harlan:

On May 1, 1986, the LTV Steel Company submitted to Ohio EPA a closure plan for three (3) hazardous waste storage tanks located at the company's Cleveland Works (East), 3100 East 45th Street, Cleveland, Ohio. The hazardous waste management units are spent pickle liquor tanks at the 98 inch pickle line. Revisions to the closure plan were received on January 12, 1987. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that the LTV Steel Company's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of the LTV Steel Company in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at the LTV Steel Company meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The closure plan submitted to Ohio EPA by the LTV Steel Company, Cleveland Works (East) is hereby approved with the following modification:

- The tanks and containment dike shall be visually inspected as described in the revised closure plan. If structural defects are discovered (cracks, fissures, etc.) which may have allowed a release of hazardous waste and hazardous constituents, LTV Steel Company shall inform the appropriate Ohio EPA Northeast District Office personnel immediately. Following this notification, LTV shall submit a plan for approval to assess the extent of the structural defects and determine the extent of any contamination resulting from the structural defects. This plan shall be submitted to the Ohio EPA within thirty (30) days of the notification referred to above.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: [Signature] Date 8/19/87

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

AUG 19 1987

Mr. T.J. Harlan, Jr.

Page Two

August 19, 1987

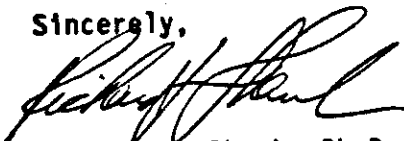
Please be advised that approval of this closure plan does not release the LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

Due to the fact that the Ohio EPA is not currently authorized to conduct the federal hazardous waste program in Ohio, your closure plan also must be reviewed and approved by USEPA. Federal RCRA closure regulations (40 CFR 265.112) require that you submit a closure plan to George Hamper, Chief, Waste Management Division, Technical Programs Section, Ohio Unit, USEPA, Region V, 5HS-13, 230 South Dearborn Street, Chicago, Illinois 60604. Approval by both agencies is necessary prior to commencement of activities required by the approved closure plan.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and a registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator should include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Program Planning and Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Richard L. Shank, Ph.D.  
Director

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

AUG 19 1987

RLS/DF/ara

cc: Thomas Crepeau/DSHWM Central File, Ohio EPA  
Rebecca Strom, USEPA, Region V  
Kris Coder, Ohio EPA, NEDO

1370U

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

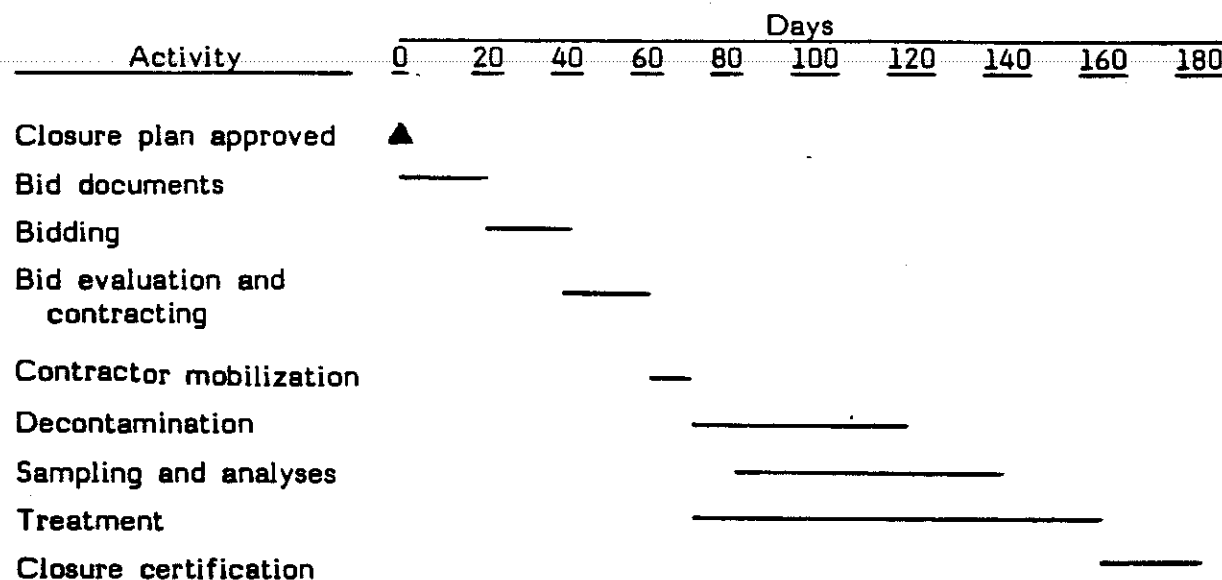
By: Jim M. Coder Date 8/19/87

## VI. CLOSURE SCHEDULE AND CERTIFICATION

The estimated schedule for closure of the SPL storage tanks is presented in Table 2. Closure activities will proceed when the Closure Plan has been approved by U.S. EPA and Ohio EPA. All closure activities will be completed in accordance with the approved Closure Plan within 180 days after the Director's approval of the Closure Plan.

Table 2

Estimated Closure Schedule  
98-inch Pickle Line Storage Tanks  
LTV Steel Cleveland Works East



An independent registered professional engineer and LTV Steel will certify that the storage tanks are closed in accordance with the approved closure plan. Certification will be submitted to Region V, U.S. EPA, and Ohio EPA within 30 days after completion of closure activities.



5H-12

T. J. Harlan, Jr.  
Corporate Environmental Control  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

RE: Partial Closure Plan  
LTV Steel Company, Incorporated  
Cleveland Works (East)  
OHD 004 218 673

Dear Mr. Harlan:

This letter is in reference to the partial closure plan for 3 spent pickle liquor tanks located at the LTV Steel Cleveland Works (East) in Cleveland, Ohio. The closure plan for these units was submitted to the United States Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) in January 1987. The plan was public reviewed by the OEPA in July 1987.

I have reviewed the closure plan, subject to specific conditions, in a letter dated August 19, 1987, provided that the plan as submitted ("as submitted" collection") shall

The OEPA approved the closure plan, subject to specific conditions, in a letter dated August 19, 1987. The U.S. EPA hereby approves the conditions, in a letter amended by the OEPA letter of August 19, 1987, provided that the following additional conditions are met:

procedures on Page 8, Section IV.A ("Sample Collection") shall be followed; rinse solution referred to in samples.

1. The sampling procedures on Page 8, Section IV.A (Sampling Procedures) shall be carried out as follows:

- The sampling procedure shall be carried out as follows:
- Each composite sample of decontamination rinse from this section shall be derived from at least 4 grab samples.
2. The decontamination or "clean" standard for the inlet pipes, tanks, and containment facilities stated on Pages 8 and 9 shall be revised as follows:
- The inlet pipes, tanks, and containment facilities will be considered adequately decontaminated if: a) concentrations of chromium and lead in samples of the final rinse taken after cleaning out each pipe, tank, and diked area do not exceed concentrations of chromium and lead in the clean rinse solution used to decontaminate the tanks and associated structures. To establish this decontamination standard, a composite sample consisting of at least 4 grab samples shall be taken from the rinse solution before it is used for decontamination. This sample shall be analyzed for chromium and lead, using the test methods listed in Section IV.B of the closure plan; and b) pH of the rinse water is between 6 and 9. If analyses indicate that these limits are not met, all decontamination steps shall be repeated until the limits are met.



If LTV cannot achieve complete decontamination as described above after 3 rinsings of the tanks and associated structures, LTV may propose alternate levels of chromium and lead to be used to measure the completion of decontamination efforts. U.S. EPA shall review and approve such levels before LTV can certify clean closure. Such levels shall be proposed to U.S. EPA within 45 days of LTV's determination that such levels are needed.

Please be advised that approval of this closure plan does not release LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984, regarding corrective action for all releases of hazardous waste constituents from any solid waste management unit, regardless of the time at which waste was placed in such units.

Please contact Ms. Francine P. Norling of my staff, at (312) 886-6198, if you have any questions regarding the above.

Sincerely,

Basil G. Constantelos, Director  
Waste Management Division

cc: L. A. Szuhay, LTV Company  
Tom Crepeau, OEPA  
Ed Kitchen, OEPA  
Kris Coder, OEPA-NEDO

| RCRA PERMITS            | TYPE | AUTH.             | IL. CHIEF | IN. CHIEF | MI. CHIEF | MN/WI CHIEF | OH. CHIEF | RPB CHIEF | O. R. A.D.D.  | WMD DIR |
|-------------------------|------|-------------------|-----------|-----------|-----------|-------------|-----------|-----------|---------------|---------|
| 4/2/88<br>INIT.<br>DATE | 2c   | 7.0 n.<br>6/13/88 |           |           |           |             | 6/21/88   | 6/13/88   | WEN<br>6/6/88 | 6/7     |

6/6/88

EP 60-6-88

September 21, 1987

Mr. George Hamper, Chief  
Waste Management Division  
Technical Programs Section  
Ohio Unit  
U.S. EPA Region V 5HS-13  
230 South Dearborn Street  
Chicago, Illinois 60604

RECEIVED

SEP 24 1987

U. S. EPA, REGION V  
SWB - PMS

RECEIVED

SEP 23 1987

SOLID WASTE BRANCH  
U.S. EPA, REGION V

Re: Closure Plan - 98 Inch Mill  
LTV Steel Company  
Cleveland Works (East)  
EPA ID No. OHD004218673  
HWFAB Permit 02-18-0186

Dear Mr. Hamper:

Two copies of a closure plan for spent pickle liquor tanks at the above plant were submitted to Ohio EPA and Region V on January 9, 1987. On August 19, 1987, Ohio EPA approved the closure plan, provided that a visual inspection of the tanks and containment dike did not disclose structural defects which may have allowed a release of hazardous waste or hazardous constituents. Such an inspection was conducted on August 28, 1987. The attached inspection report show that there are no visual signs of a release.

Ohio EPA indicates in its approval letter that review and approval of the closure plan is also required by U.S. EPA. Please call me at 216/429-6535 if any additional information is required from LTV Steel.

*Tom Harlan*

T. J. Harlan, Jr.  
Environmental Management Engineer  
Environmental Control

TJH/fh

Enclosure

cc: Thomas Crepeau/DSHWM Central File, Ohio EPA (w/enc.)  
Kris Coder, Ohio EPA, NEDO

3302a

COPY

SUBJECT: DIKE INSPECTION  
98" PICKLE LINE - SPL TANKS

DATE: September 14, 1987

TO: L. A. Szuhay  
Corporate Environmental Control Department  
Cleveland Works

NO.:

An inspection of the above subject dike was conducted on August 28, 1987 by T. J. Harlan (Environmental Management Engineer), T. M. Girdler (Environmental Engineer), W. S. Smuts, P.E. (Area Engineer) and me. The following observations were noted:

1. The dike wall showed evidence of cracks at six locations.

- a. South wall approximately 6 feet from east.
- b. North wall approximately 9 feet from east.
- c. Four locations on west wall, located near upright supports for structure above tanks.

The cracks on the north and west walls were accessible for inspection on the outside of the dike. There was no evidence of leakage on the outside of the dike surfaces at these locations. There was no concrete deterioration. There was no evidence of leakage at any of these cracks on the inside of the dike. The protective coating was cracked but clean, with no sign of attack on the concrete behind the cracks. It appeared that the coating cracks occurred recently, possibly after this area was taken out of service.

2. The protective coating on the floor of the dike had been broken away from the concrete floor in the northwest corner, adjacent to a square sump hole. The concrete area under this coating was solid with no sign of deterioration or acid attack.
3. The two sumps each contained water and solids sediment in the bottom, appeared intact, as verified by their ability to retain the water without leakage. Metal framework from tops of sumps was badly deteriorated.
4. There was significant metal deterioration on the ends of the tank support beams with subsequent separation of the protective coating. However, the concrete floor underneath these areas was solid with no sign of deterioration.
5. Generally, the protective coating inside the dike area was in very good condition with no indication of failure except as noted above.
6. The diked area around the pumping system was intact and did not show any signs of compromise.

DIKE INSPECTION  
98" PICKLE LINE - SPL TANKS  
PAGE 2

Please apply this information as required by the Ohio E.P.A. per their letter of August 19, 1987 (attached). Contact me if you have any questions or require any further information.

A handwritten signature in black ink, appearing to read "R. L. Nemeth". The signature is fluid and cursive, with a large initial "R" and "L" and a stylized "Nemeth".

R. L. Nemeth  
Superintendent  
Environmental Control Department  
Cleveland Works

RLN:db



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149



Richard F. Celeste  
Governor

CERTIFIED MAIL

August 19, 1987

Re: CLOSURE PLAN  
LTV STEEL COMPANY  
CLEVELAND WORKS (EAST)  
OHD004218673, 02-18-0186

Mr. T.J. Harlan, Jr.  
Corporate Environmental Department  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Harlan:

On May 1, 1986, the LTV Steel Company submitted to Ohio EPA a closure plan for three (3) hazardous waste storage tanks located at the company's Cleveland Works (East), 3100 East 45th Street, Cleveland, Ohio. The hazardous waste management units are spent pickle liquor tanks at the 98 inch pickle line. Revisions to the closure plan were received on January 12, 1987. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that the LTV Steel Company's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of the LTV Steel Company in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at the LTV Steel Company meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The closure plan submitted to Ohio EPA by the LTV Steel Company, Cleveland Works (East) is hereby approved with the following modification:

- The tanks and containment dike shall be visually inspected as described in the revised closure plan. If structural defects are discovered (cracks, fissures, etc.) which may have allowed a release of hazardous waste and hazardous constituents, LTV Steel Company shall inform the appropriate Ohio EPA Northeast District Office personnel immediately. Following this notification, LTV shall submit a plan for approval to assess the extent of the structural defects and determine the extent of any contamination resulting from the structural defects. This plan shall be submitted to the Ohio EPA within thirty (30) days of the notification referred to above.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: [Signature] Date 8/19/87

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

AUG 19 1987

Mr. T.J. Harlan, Jr.  
Page Two  
August 19, 1987

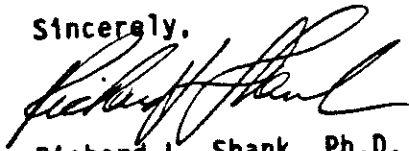
Please be advised that approval of this closure plan does not release the LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

Due to the fact that the Ohio EPA is not currently authorized to conduct the federal hazardous waste program in Ohio, your closure plan also must be reviewed and approved by USEPA. Federal RCRA closure regulations (40 CFR 265.112) require that you submit a closure plan to George Hamper, Chief, Waste Management Division, Technical Programs Section, Ohio Unit, USEPA, Region V, 5HS-13, 230 South Dearborn Street, Chicago, Illinois 60604. Approval by both agencies is necessary prior to commencement of activities required by the approved closure plan.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and a registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator should include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Program Planning and Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Richard L. Shank, Ph.D.  
Director

RLS/DF/ara

cc: Thomas Crepeau/DSHWM Central File, Ohio EPA  
Rebecca Strom, USEPA, Region V  
Kris Coder, Ohio EPA, NEDO

1370U

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: John M. Canale Date 8/19/87

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

AUG 19 1987



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149



Richard F. Celeste  
Governor

CERTIFIED MAIL

August 19, 1987

Re: CLOSURE PLAN  
LTV STEEL COMPANY  
CLEVELAND WORKS (EAST)  
OHD004218673, 02-18-0186

Mr. T.J. Harlan, Jr.  
Corporate Environmental Department  
LTV Steel Company  
3100 East 45th Street  
Cleveland, Ohio 44127

Dear Mr. Harlan:

On May 1, 1986, the LTV Steel Company submitted to Ohio EPA a closure plan for three (3) hazardous waste storage tanks located at the company's Cleveland Works (East), 3100 East 45th Street, Cleveland, Ohio. The hazardous waste management units are spent pickle liquor tanks at the 98 inch pickle line. Revisions to the closure plan were received on January 12, 1987. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that the LTV Steel Company's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of the LTV Steel Company in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at the LTV Steel Company meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The closure plan submitted to Ohio EPA by the LTV Steel Company, Cleveland Works (East) is hereby approved with the following modification:

- The tanks and containment dike shall be visually inspected as described in the revised closure plan. If structural defects are discovered (cracks, fissures, etc.) which may have allowed a release of hazardous waste and hazardous constituents, LTV Steel Company shall inform the appropriate Ohio EPA Northeast District Office personnel immediately. Following this notification, LTV shall submit a plan for approval to assess the extent of the structural defects and determine the extent of any contamination resulting from the structural defects. This plan shall be submitted to the Ohio EPA within thirty (30) days of the notification referred to above.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: [Signature] Date: 8/19/87

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

AUG 19 1987



Mr. T.J. Harlan, Jr.

Page Two

August 19, 1987

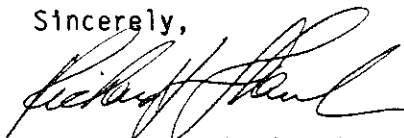
Please be advised that approval of this closure plan does not release the LTV Steel Company from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

Due to the fact that the Ohio EPA is not currently authorized to conduct the federal hazardous waste program in Ohio, your closure plan also must be reviewed and approved by USEPA. Federal RCRA closure regulations (40 CFR 265.112) require that you submit a closure plan to George Hamper, Chief, Waste Management Division, Technical Programs Section, Ohio Unit, USEPA, Region V, 5HS-13, 230 South Dearborn Street, Chicago, Illinois 60604. Approval by both agencies is necessary prior to commencement of activities required by the approved closure plan.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and a registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator should include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Solid and Hazardous Waste Management, Attn: Thomas Crepeau, Program Planning and Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Richard L. Shank, Ph.D.  
Director

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

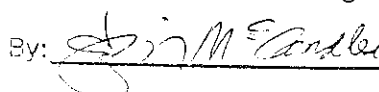
AUG 19 1987

RLS/DF/ara

cc: Thomas Crepeau/DSHWM Central File, Ohio EPA  
Rebecca Strom, USEPA, Region V  
Kris Coder, Ohio EPA, NEDO

1370U

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By:  Date 8/19/87





State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.  
Columbus, Ohio 43266-0149



Richard F. Celeste  
Governor

July 15, 1987

Re: LTV Steel Company, Inc.  
Closure Plan  
US EPA ID No.: OHD004218673  
Ohio Permit No.: 02-18-0186

LTV Steel Company, Inc.  
Attn: W. G. Wiley, Jr.  
3100 E. 45th Street  
Cleveland, Ohio 44127

Dear Sir:

A public notice acknowledging the Ohio EPA's receipt of a closure plan for LTV Steel Company, Inc. in Cleveland, Ohio will appear the week of July 20, 1987, in the Cleveland Plain Dealer, Cleveland, Ohio. The Director of the Ohio EPA will act upon the closure plan request following the close of the public comment period, August 25, 1987.

Copies of the closure plan will be available for public review at the Cleveland Public Library, 325 Superior Avenue, Cleveland, Ohio 44114 and the Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Please contact me at (614) 481-7217, if you have any questions concerning this matter.

Sincerely,

Thomas E. Crepeau  
Program Planning and Management Section  
Division of Solid & Hazardous Waste Management

TEC/dhs

cc: Rebecca Strom, U.S. EPA, Region V, w/o attachment  
Dan Fisher, Ohio EPA, DSHWM, TA&ES  
Kris Coder, Ohio EPA, DSHWM, NEDO

1013R

COPY

RECEIVED

JUL 20 1987

SWD - AIC  
U.S. EPA, REGION V

PUBLIC NOTICE

Cuyahoga County

RECEIPT OF HAZARDOUS WASTE CLOSURE PLAN

For: LTV Steel Company, Inc., Cleveland Works East, U.S. EPA ID No.: OHD004218673, Ohio Permit No.: 02-18-0186, 3100 E. 45th Street, Cleveland, Ohio 44127. Pursuant to OAC Rule 3745-66-10 thru 17 and 40 CFR, Subpart G, 265.110 thru 117, the Ohio Environmental Protection Agency (Ohio EPA) is hereby giving notice of the receipt of a Hazardous Waste Facility Closure Plan for the above referenced facility. Ohio EPA is also giving notice that this facility is subject to a determination concerning corrective action, a requirement under the Hazardous and Solid Waste Amendments of 1984, which concerns any possible uncorrected releases of hazardous waste or hazardous constituents to the environment from any current or previous solid waste management units at the above facility. A corrective action determination is required from hazardous waste facilities intending to close.

Copies of the facility's Closure Plan will be available for public review at the Cleveland Public Library, 325 Superior Avenue, Cleveland, Ohio 44114 and the Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Comments concerning the Closure Plan or factual information concerning any releases of hazardous waste or hazardous waste constituents by the above facility requiring corrective action should be submitted within 30 days of this notice to: Ohio Environmental Protection Agency, Div. of Solid & Hazardous Waste Mgmt., Program Planning and Management Section, Attn: Thomas E. Crepeau, Box 1049, Columbus, Ohio 43266-0149.

LTV Steel Company

LTV

January 9, 1987

Certified Mail-Return Receipt Requested

Mr. Kris L. Coder  
Environmental Scientist  
Division of Solid and Hazardous Waste Management  
Ohio Environmental Protection Agency  
Northeast Ohio District  
2110 E. Aurora Road  
Twinsburg, Ohio 44087

RECEIVED

JAN 12 1987

RECEIVED  
U.S. EPA, REGION V

JAN 12 1987

Re: LTV Steel Company, Inc.  
Cleveland Facility (East)  
OHD 004 218 673  
Revised Closure Plan for 98 Inch Mill  
Pickle Line Storage Tanks

U.S. EPA, REGION V

Dear Mr. Coder:

Attached are four copies of the above revised closure plan as requested by your November 4 letter to Mr. L. A. Szuhay. Ohio EPA holds Aetna closure bond number 018-S-75162 in the amount of \$132,330 to cover the Cleveland facilities, including these storage tanks. I believe all of the points of your letter have now been addressed, and await approval of this revised plan.

*T. J. Harlan*

T. J. Harlan, Jr.  
Environmental Management Engineer  
Environmental Control

TJH/fh

Attachment

cc: U.S. EPA (w/enclosure-2 copies) ✓  
Region V  
Post Office Box A-3587  
Chicago, IL 60604  
Attn: RCRA Activities

2615a

LTV Steel Company

LTV

September 2, 1986

CERTIFIED MAIL

U.S. Environmental Protection Agency  
Region V  
230 South Dearborn  
Chicago, IL 60604

Attention: Regional Administrator

Re: LTV Steel Company, Inc.  
Cleveland Works East  
OHD 004 218 673

RECEIVED  
SEP 9 1986

U.S. EPA, REGION V  
WASTE MANAGEMENT DIVISION  
OFFICE OF THE DIRECTOR

Dear Sir/Madam:

Please be advised that on July 17, 1986, The LTV Corporation and numerous of its subsidiaries, including LTV Steel Company, Inc., filed petitions for reorganization under Chapter 11 of the Bankruptcy Code in the United States Bankruptcy Court for the Southern District of New York. The Chapter 11 proceedings have been assigned case numbers 86 B 11270 through 86 B 11334 inclusive and have been referred to the Honorable Burton R. Lifland, United States Bankruptcy Judge.

This notification is being made pursuant to 40 CFR §264.18 and/or §265.148 and/or analogous State requirements. LTV Steel Company's withdrawal of the Part A application for this facility is pending and the bond has not yet been returned.

Sincerely,

*L. A. Szuhay*

L. A. Szuhay  
Manager-Solid and Hazardous Waste  
Environmental Control

LAS/fh

cc: Ohio EPA

2269a



RECEIVED

FEB 27 1986

SOLID WASTE  
U.S. EPA, REGION V

February 17, 1986

RECEIVED

FEB 26 1986

SOLID WASTE DIVISION  
U.S. EPA, REGION V

Mr. Kris Coder  
Ohio Environmental Protection Agency  
2100 East Aurora Road  
Twinsburg, Ohio 44087

Dear Mr. Coder:

Subject: **LTV STEEL COMPANY, INC. - CLEVELAND WORKS**  
**E.P.A. IDENTIFICATION NO. OHD004218673**  
**TANK CLOSURE PLAN**

The LTV Steel Company, formerly Republic Steel Corporation, is planning to close three hazardous waste tanks associated with the 98" Pickle Line due to terminated operations. The three 25,000-gallon capacity tanks are rubber lined steel and have been out of service since mid 1984. It is our intent to sever and blank the fill lines from these tanks and leave the tanks in place after closure.

The steps of the closure plan are as follows:

1. Vacuum any liquids and solids from the tanks. Transport this material to the Regeneration Plant in Warren, Ohio.
2. Fill the tanks with water. Remove and transport this rinse to the rinse water treatment system at the Strip Mill Water Treatment Plant, a NPDES facility.
3. Fill the tanks with water. Pump the water to the Strip Mill Water Treatment Plant hot mill system. Continue this process until the pH is above 7.0.
4. Fill the tanks with lime slurry. Remove slurry to the Strip Mill Water Treatment Plant EGL system where it will be used for pH control.
5. Rinse tanks with water and direct to Strip Mill Water Treatment Plant hot mill system. Sample this final rinse and test for metals of concern and pH.
6. Rinse inlet pipes with 20 percent sodium hydroxide solution. Transport this material to the Strip Mill Water Treatment Plant for pH control.
7. Rinse inlet pipes with water. Pump this rinse to the Strip Mill Water Treatment Plant EGL system.
8. Blank tank inlets.

9. Notify appropriate agencies of plan completion.

R. E. Warner & Associates, consulting Engineers, have been contracted to provide professional engineering service throughout this closure.

Steps 1,2, and 3 were completed in December 1985, due to anticipated cold weather. The tanks are presently empty.

Please give this matter your prompt consideration. It is anticipated that this work can be completed by May 1, 1986 with your concurrence. Contact Mr. Tom Girdler, 429-6390, if you have any questions regarding this procedure.

Very truly yours,

LTV STEEL COMPANY, INC.



R. L. Nemeth  
Superintendent  
Environmental Control  
Cleveland Works

RLN/TMG:db

cc: Ohio EPA - Columbus, Ohio  
✓ U.S. EPA Region V - Chicago, Illinois

10. "CLEAN" LEVELS FOR SOIL

As these tanks are mounted on a diked concrete pad, soil contamination considerations are not applicable.

11. SAMPLING PLAN AND ANALYTICAL METHODS

There is no record of any reportable quantity spills from this facility.

12. DESCRIPTION OF REMOVAL EFFORTS

Not Applicable

13. SPECIFICS FOR LANDFILL CLOSURES

Not Applicable

14. DESCRIPTION OF EQUIPMENT CLEANING

H&H Industrial, an industrial cleaning specialist, has been contracted to perform all of the steps for decontamination.

15. CERTIFICATION

R. E. Warner & Associates, Consulting Engineers, 2130 West Park Drive, Lorain, Ohio 44053, have been retained to provide any and all necessary engineering services. Certification of closure will be provided by LTV Steel Company, Inc. and R. E. Warner & Associates within 30 days of completion of closure.

16. STATUS OF FACILITY AFTER CLOSURE

After closure, the tanks will remain in place.

17. NUMBER OF COPIES OF PLAN

Three (3) copies of this plan are being submitted to Thomas Crepeau, Ohio E.P.A., Division of Solid and Hazardous Waste Management, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

18. CLOSURE REGULATIONS

Not Applicable.

LTV STEEL COMPANY, INC. - CLEVELAND WORKS  
E.P.A. IDENTIFICATION NO. OHD 004 218 673  
HWFAB NUMBER 02-18-0186  
TANK CLOSURE PLAN  
APRIL 28, 1986

The LTV Steel Company, formerly Republic Steel Corporation, is planning to close three spent pickle liquor tanks. The following closure plan has been developed utilizing the Draft Review Guidance document (12-10-85) provided by the Ohio E.P.A.

1. DESCRIPTION OF FACILITY

LTV Steel Company, Inc., Cleveland Works - East, is a basic flat rolled steel producer located at 3100 East 45th Street, Cleveland, Ohio. The three (3) spent pickle liquor tanks are associated with the 98" Pickle Line, whose operations were suspended in July 1984.

2. DESCRIPTION OF WASTE MANAGEMENT UNITS TO BE CLOSED

Each of the tanks is rubber lined steel, with a capacity of 25,000 gallons. The material stored in these tanks was spent hydrochloric pickle liquor, K062. These tanks are identified on Revised Part A Application dated 4/28/86, Section III C, Line 1.

3. MAP OF FACILITY

A plant location map is attached.

4. DETAILED DRAWING OF UNIT(S) TO BE CLOSED

The following detailed drawings of the tanks are attached:

|          |           |                       |
|----------|-----------|-----------------------|
| 64491    | (1-16-68) | Foundation Location   |
| SK-11370 | (1-16-67) | Tank Detail (Typical) |

5. LIST OF HAZARDOUS WASTE

Spent hydrochloric pickle liquor (K062) was the only waste stored in these tanks. The maximum potential storage capacity was 75,000 gallons. The tanks are presently empty.

6. SCHEDULE FOR CLOSURE

See Item 9 and Item 15.



7. AIR EMISSIONS

Not Applicable

8. PERSONNEL SAFETY AND FIRE PREVENTION

All wastes and materials used in this procedure are enclosed in pipelines, sealed vacuum trucks or tankers. There is minimal potential for exposure to personnel. However, established plant safety procedures are utilized in handling of acids and caustics, including the use of personal protective safety equipment where applicable.

9. DECONTAMINATION EFFORTS

The steps for decontamination are as follows:

- a. Vacuum any liquids and solids from the tanks. Transport this material to the LTV Steel Regeneration Plant in Warren, Ohio.
- b. Rinse the tanks with water. Remove and transport this rinse to the rinse water system at the Strip Mill Water Treatment Plant, a NPDES facility.
- c. Fill the tanks with water. Pump this water to the Strip Mill Water Treatment Plant. Continue this process until the pH of the water is above 7.0.

NOTE: Because the building in which the tanks are located is not heated, the above steps were completed in November 1985. These steps were taken to prevent the possibility of freeze damage to the tanks.

- d. Fill the tanks with lime slurry. Remove this slurry to the Strip Mill Water Treatment Plant EGL system where it will be used for pH control.
- e. Rinse tanks with water and direct to the Strip Mill Water Treatment Plant. Test this rinse for pH and metals of concern.
- f. Rinse inlet pipes with 20 percent sodium hydroxide. Transport this material to the Strip Mill Water Treatment Plant for pH control.
- g. Rinse inlet pipes with water. Pump this rinse to the Strip Mill Water Treatment Plant.
- h. Blank tank inlets.

Refer to Item 15.